LG

KE-14P2**

MODEL

SERVICE MANUAL

ADJUSTMENT INSTRUCTIONS

Notes;

(Adjustments must be performed by the following procedures)

1. It is recommended that an isolation transformer be used when servicing this chassis to prevent electric shock and damage to test equipment.
2. The ac line voltage must be maintained at 230 vac, +- 10%, 50/60 hz.
3. Prior to making any adjustments, the receiver must be operated for 10 minutes.

1. DECK ADJUSTMENT

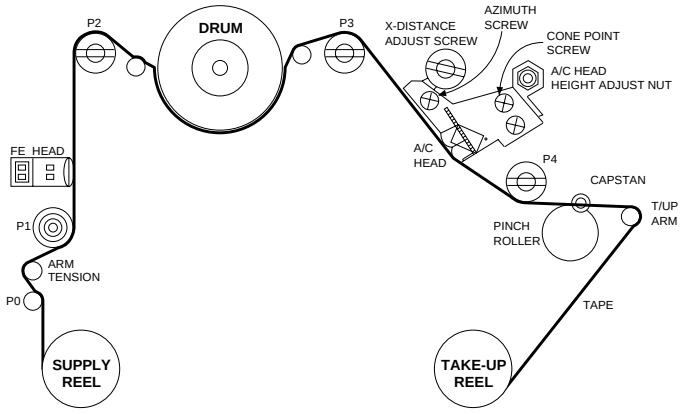
1. Deck Transit System Adjustment

1-1. Necessary Instruments

1) TAPE for SP
2) Oscilloscope
3) 10:1 Probes 2EA
4) Adjustment Driver
   (P2, P3, X-distance (NUT), Audio (NUT) control)
5) RMS Meter (Audio Level Meter)

1-2.Preliminary Steps

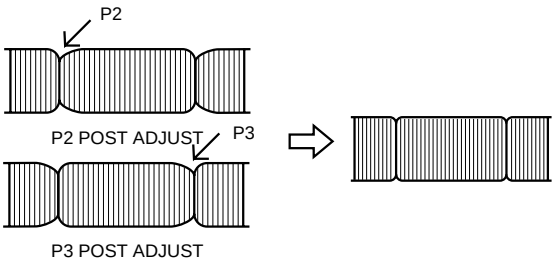
1) Connect CH 1 of the oscilloscope to J123 (H/SW) on the main PCB. Trigger on this channel.
2) Connect CH 2 of the oscilloscope to J158 (RF) on the main PCB. Monitor this waveform when preceding with step 4.
3) Play an alignment tape.
4) When the "auto Trk" caption appears on screen, press the TRK up (+) button on the RCU to initialize the manual tracking feature.
5) If manual tracking differs from auto tracking, precede with steps 1-3 (RF Linearity) and 1-4 (X-Distance Adj.).



<Adjust Parts Location>

1-3. RF linearity check and adjustment

1) Adjust P2 & P3 so that the RF ENVELOPE waveform is maximum and stabilized .
2) Check if the ENVELOPE waveform is at its maximum size by pressing TRK UP(+) and DOWN(-) button one step.



<Adjustment waveform>

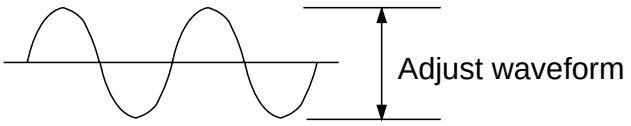
1-4. X-Distance Adjustment

1) Turn the Cone Screw of the DECK left or right so that the RF waveform is maximum.
2) Check if the RF waveform satisfies the linearity by pressing TRK UP(+) and DOWN(-) button one step.

   CAUTION: If the RF waveform becomes maximum with the Cone Screw more than 2 turns, its out of adjustment. (2 turns; 720 ¡£

1-5. Audio Level Check and Adjustment

1) Connect "+" terminal of RMS Meter (Audio Level Meter) to J108 on MAIN PCB AUDIO OUT and "-" terminal to GND, respectively.
2) Play the 1khz and 7khz segments on the alignment tape and confirm if the spec is meet in item #3. If not adjust the azimuth screw to meet this spec.
3) Audio Level Spec: 1KHz ; 0.5 ¡ 0.1Vrms
   6KHz ; 1K ¡ 1.5dB



<Adjustment Waveform>

2. CIRCUIT ADJUSTMENT

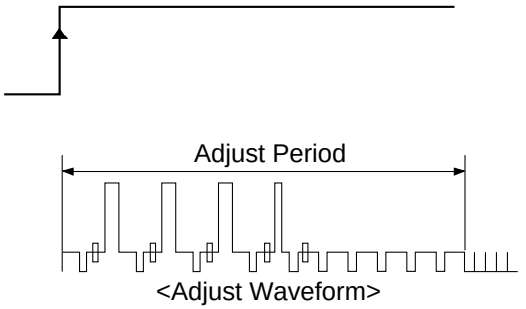
1. PG Adjustment

1-1. Necessary Instruments

1) Alignment tape SP
2) Oscilloscope
3) 10 : 1 Probe

1-2.Adjustment

1) PLAY exclusive use of SP tape. (2HD: NORMAL TAPE)
2) Connect CH 1 of the Oscilloscope to J123 (H/SW) on the MAIN PCB and VOL/DIV to 1V Range and Trigger the Oscilloscope.
3) Connect CH 2 of the oscilloscope to J241 (Video Out) on the main PCB and set the VOL/DIV to 500mV Range.
4) Set TIME/DIV of oscilloscope to 50 ¥s Range.
5) Adjust VR01 so that V-sync Falling Edge of Video signal become 412 ¥sec ¡ 20¥sec.



<Adjust Waveform>

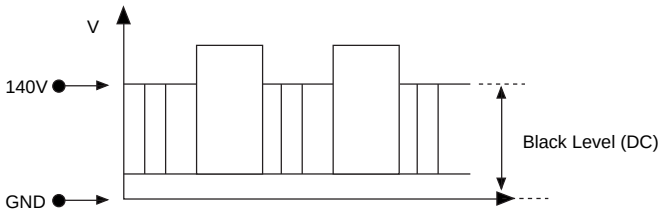
* **CAUTION:** Set the trigger mode of Oscilloscope to DC.

3. Focus Voltage Adjustment

1) Receive the cross hatch pattern.
2) Press the PICTURE button to set the Standard ON condition.
3) Adjust Focus control knob so that the focus of center & circumference to be best.

4. Screen Adjustment

1) Receive PAL DIGITAL PATTERN.
2) Select channel 0.
3) Connect the probe of oscilloscope to the RK of CPT PCB.
4) Adjust screen volume of FBT so that the waveform is the same as below figure.



¡ How to get into SVC mode when you don't have SVC Remote Controller.
Push the "OK" Key on the user's Remote Controller and local "OK" button at the same time.

5. SIF Adjustment

1) Receive PAL DIGITAL PATTERN.
2) Connect the DMM to pin 5 of IC100 (SIF TP).
3) Adjust L107 to be DC 2.3¡ 0.05V.

6. RF AGC Adjustment

1) Input PAL DIGITAL PATTERN.
2) Connect DMM to AGC(J184) test point on the Main PCB.
3) Press SVC Key on the Service Remote Controller to get into SVC mode and press PR +/- Key to select AGC.
4) Press VOL +/- Key until DMM reads the data on the table below.

MODEL	KL/KF/KE	KI
Electric fields strength	65dBu ¡ 0.2dBu	65dBu ¡ 0.2dBu
AGC Voltage	2.3 ¡ 0.1Vdc	2.1¡ 0.1Vdc

7. White Balance Adjustment

1) Input a signal which lower half is black and upper half is white.
2) Set the picture at standard on.
3) Press SVC Key on the Service Remote Controller to get into Service mode.
4) Press PR +/- Key to select BG, RG.
Press VOL +/- Key until X=281¡ 3, Y=288¡ 3.

¡ GG is fixed data at 32 so, do not adjust GG data.

8 Deflection Data Adjustment

1) Input PAL Digital Pattern.
2) Press SVC Key on the Service Remote Controller and select LINE SERVICE 2 mode.
3) Press PR +/- Key to select an adjustment mode.
4) Press VOL +/- Key to adjust data.

5) Vertical SLOPE adjustment
- ¤ Select V-SLP mode with PR +/- Key.
- ¤Ł Press VOL +/- Key until the horizontal center line of the large circle coincides with Blanking Line.

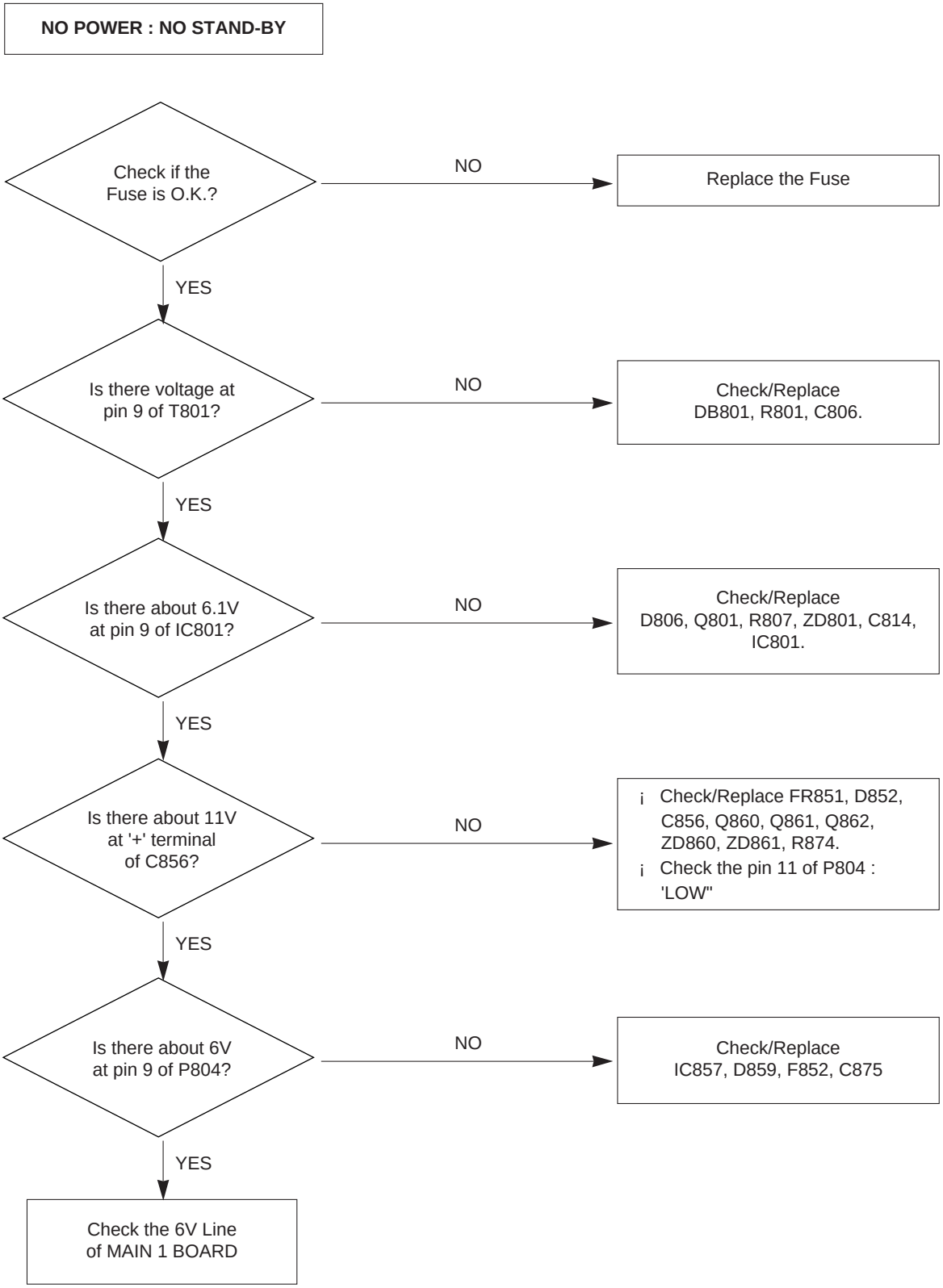
6) Vertical amplitude adjustment
- ¤ Select V-AMP mode with PR +/- Key.
- ¤Ł Press VOL +/- Key until the upper and lower end of the large circle reach 5 mm inside from the effective area of CPT.

7) Vertical Shift Adjustment
- ¤ Select V-SFT mode with PR +/- Key.
- ¤Ł Press VOL +/- Key until the horizontal center coincides with the vertical sign slot mark of CPT.

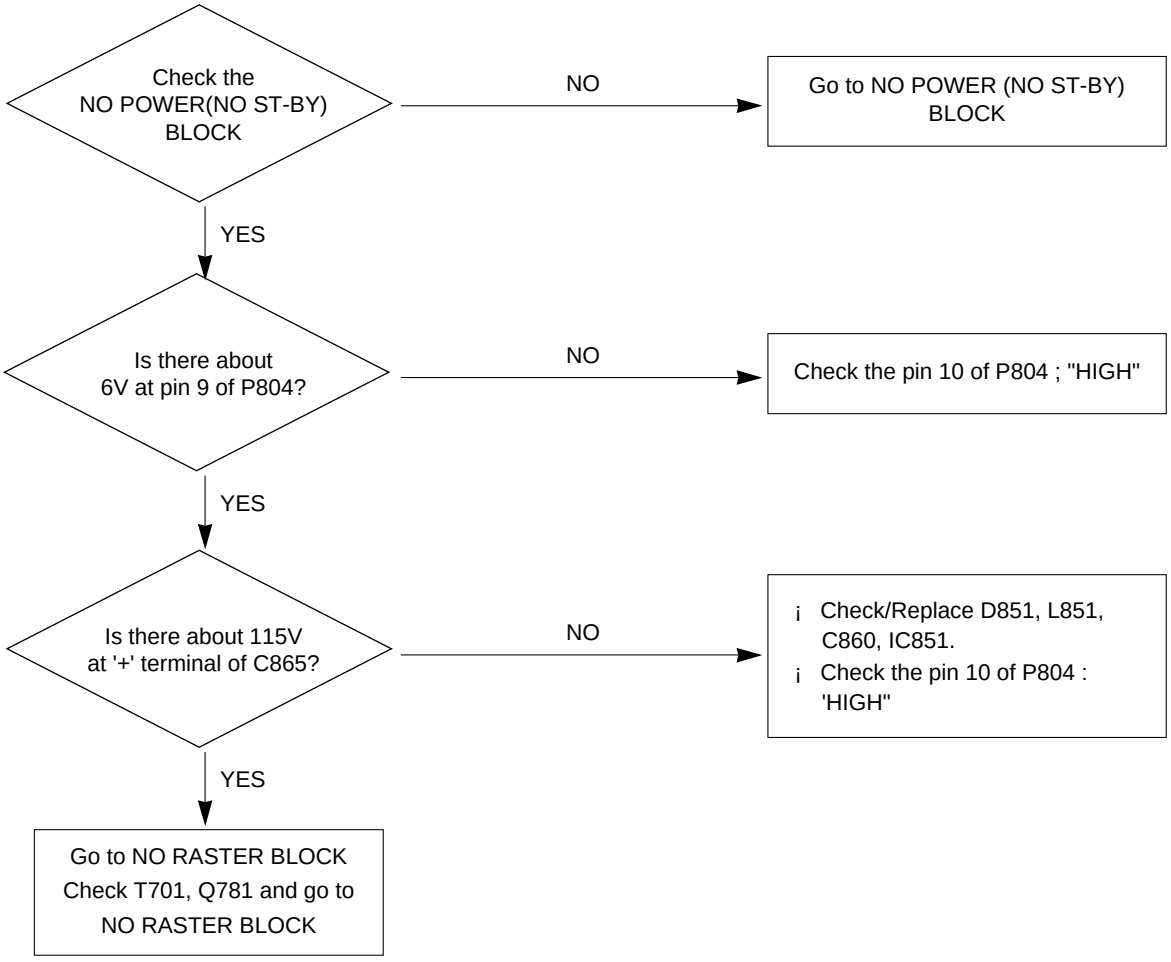
8) Horizontal Shift Adjustment
- ¤ Select H-SFT mode with PR +/- Key.
- ¤Ł Press VOL +/- Key until the vertical center coincides with the horizontal sign slot mark of CPT.

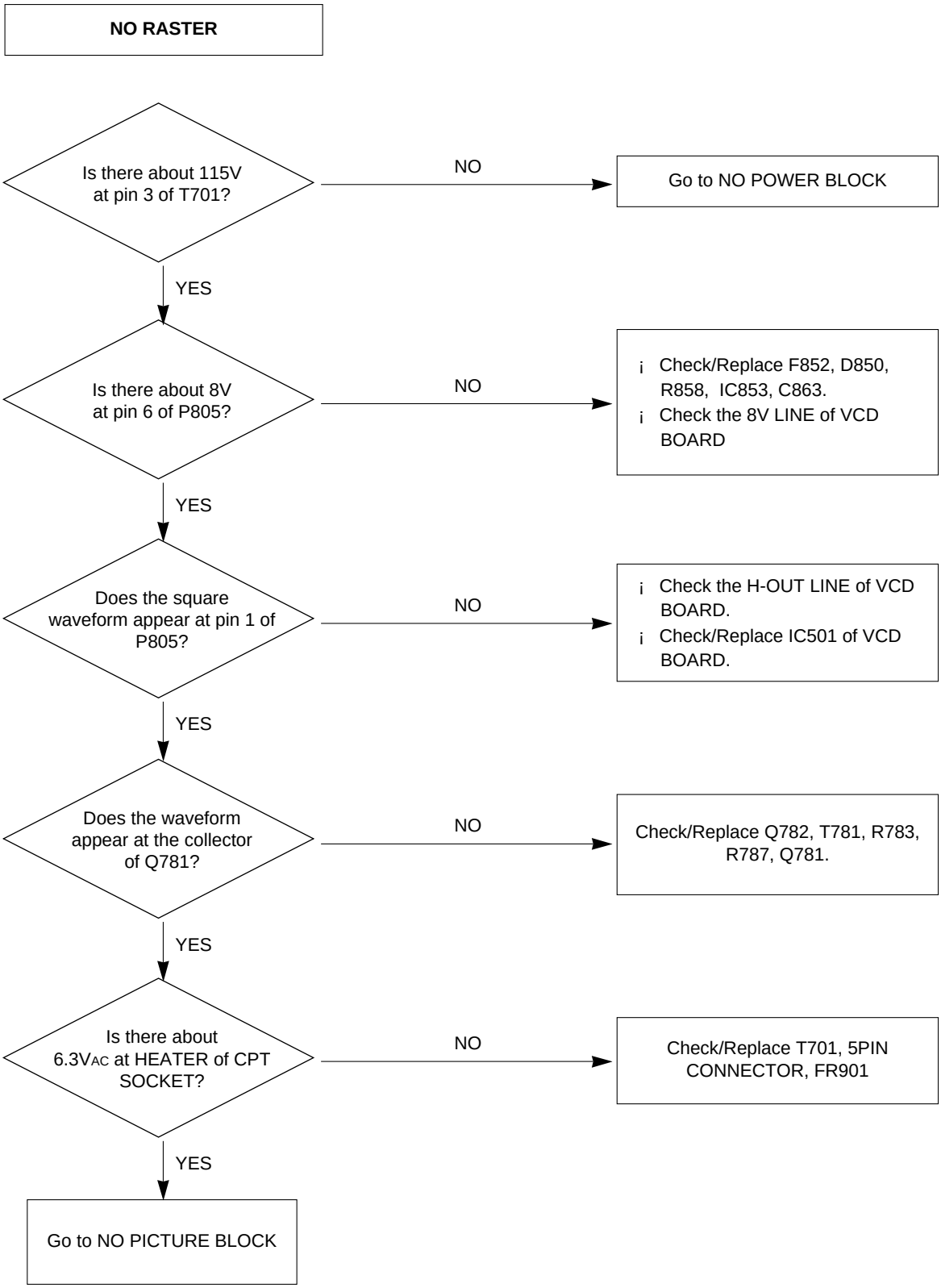
9) Vertical S-Correction Adjustment
- ¤ Select S-COL mode with PR +/- Key.
- ¤Ł Press VOL +/- Key until the grid of Cross Hatch Pattern is even all over the screen.

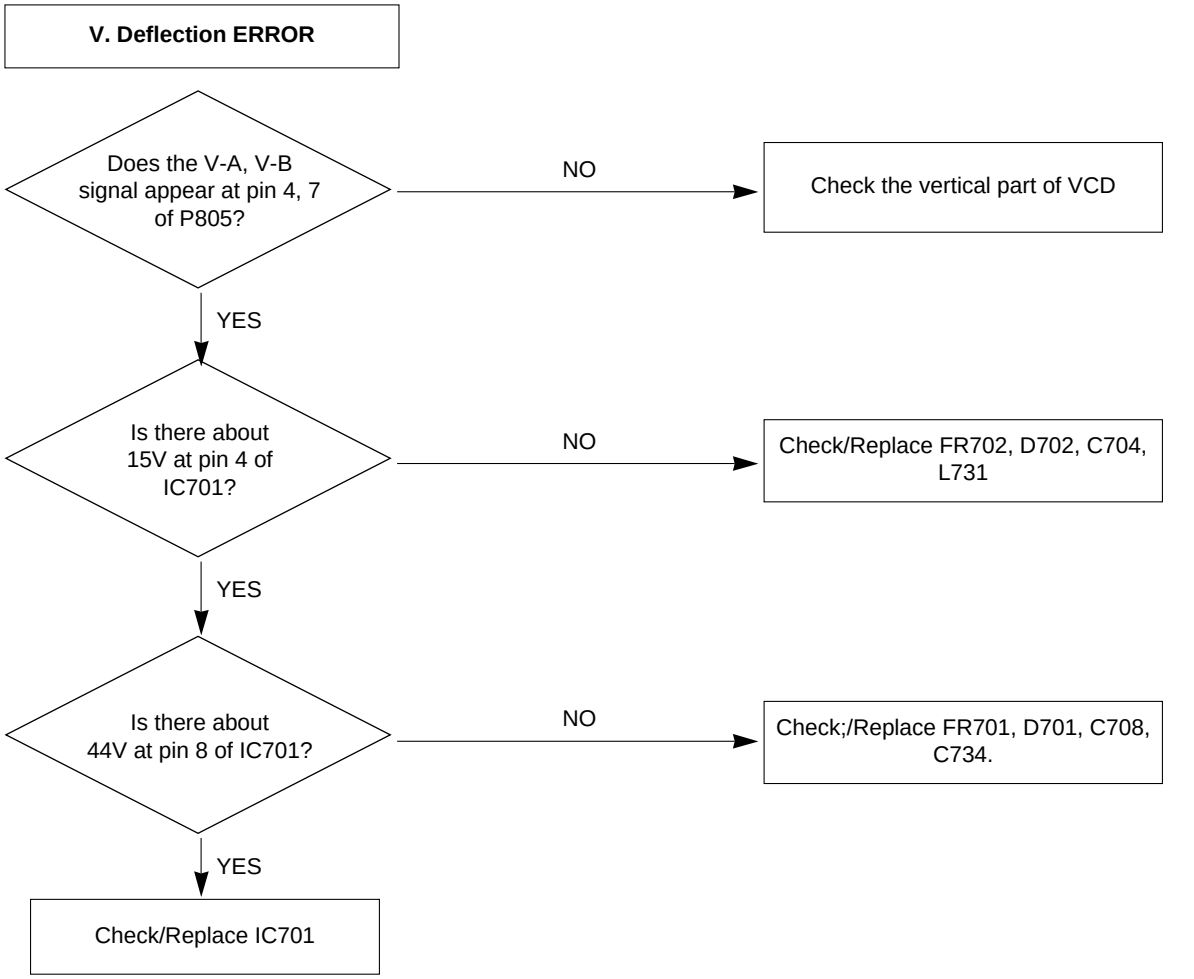
TROUBLE SHOOTING

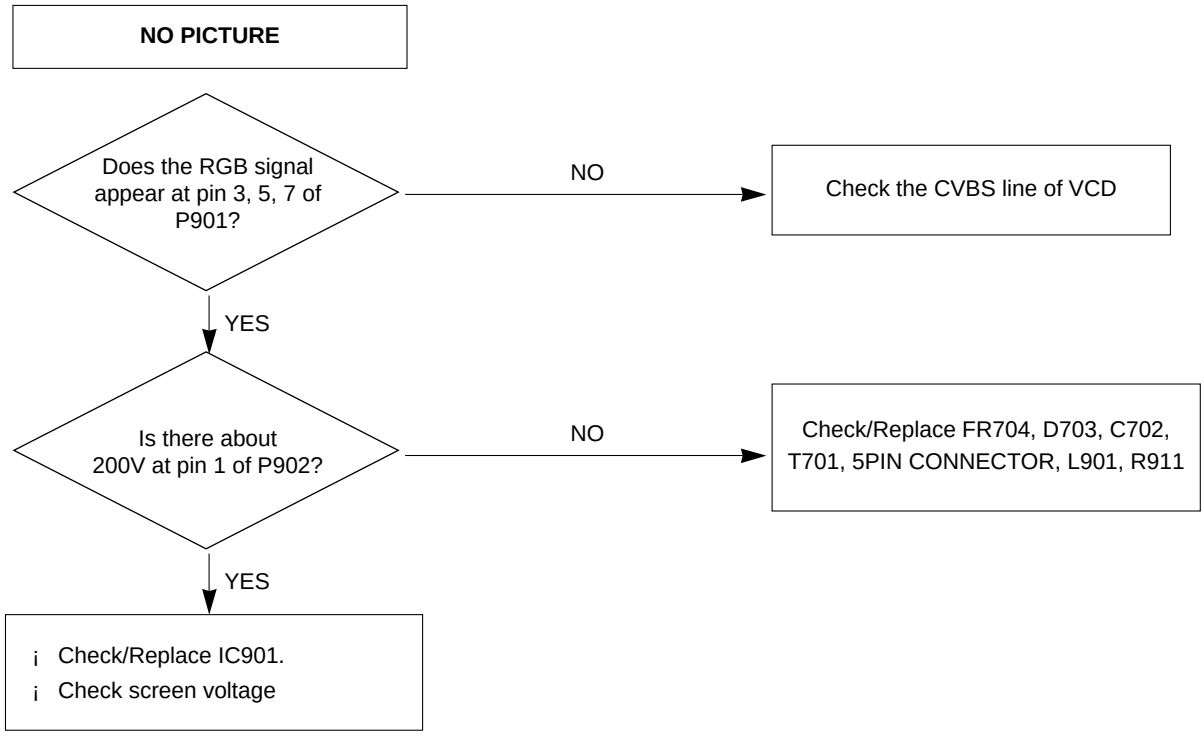

NO POWER : NO STAND-BY
Check if the Fuse is O.K.?
NO
Replace the Fuse
YES
Is there voltage at pin 9 of T801?
NO
Check/Replace DB801, R801, C806.
YES
Is there about 6.1V at pin 9 of IC801?
NO
Check/Replace D806, Q801, R807, ZD801, C814, IC801.
YES
Is there about 11V at '+' terminal of C856?
NO
¡ Check/Replace FR851, D852, C856, Q860, Q861, Q862, ZD860, ZD861, R874.
¡ Check the pin 11 of P804 : 'LOW"
YES
Is there about 6V at pin 9 of P804?
NO
Check/Replace IC857, D859, F852, C875
YES
Check the 6V Line of MAIN 1 BOARD

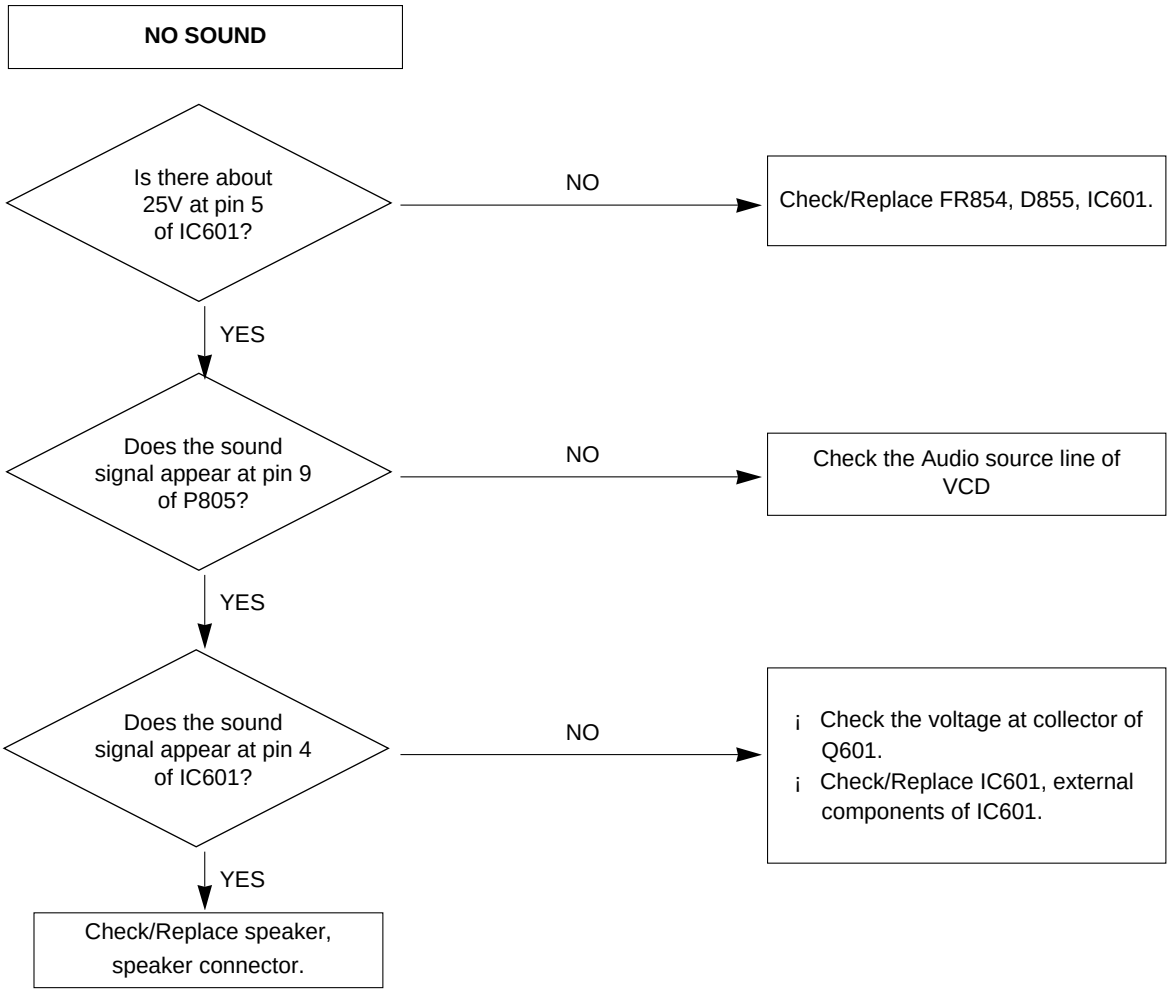
NO POWER : NO MONITOR ON



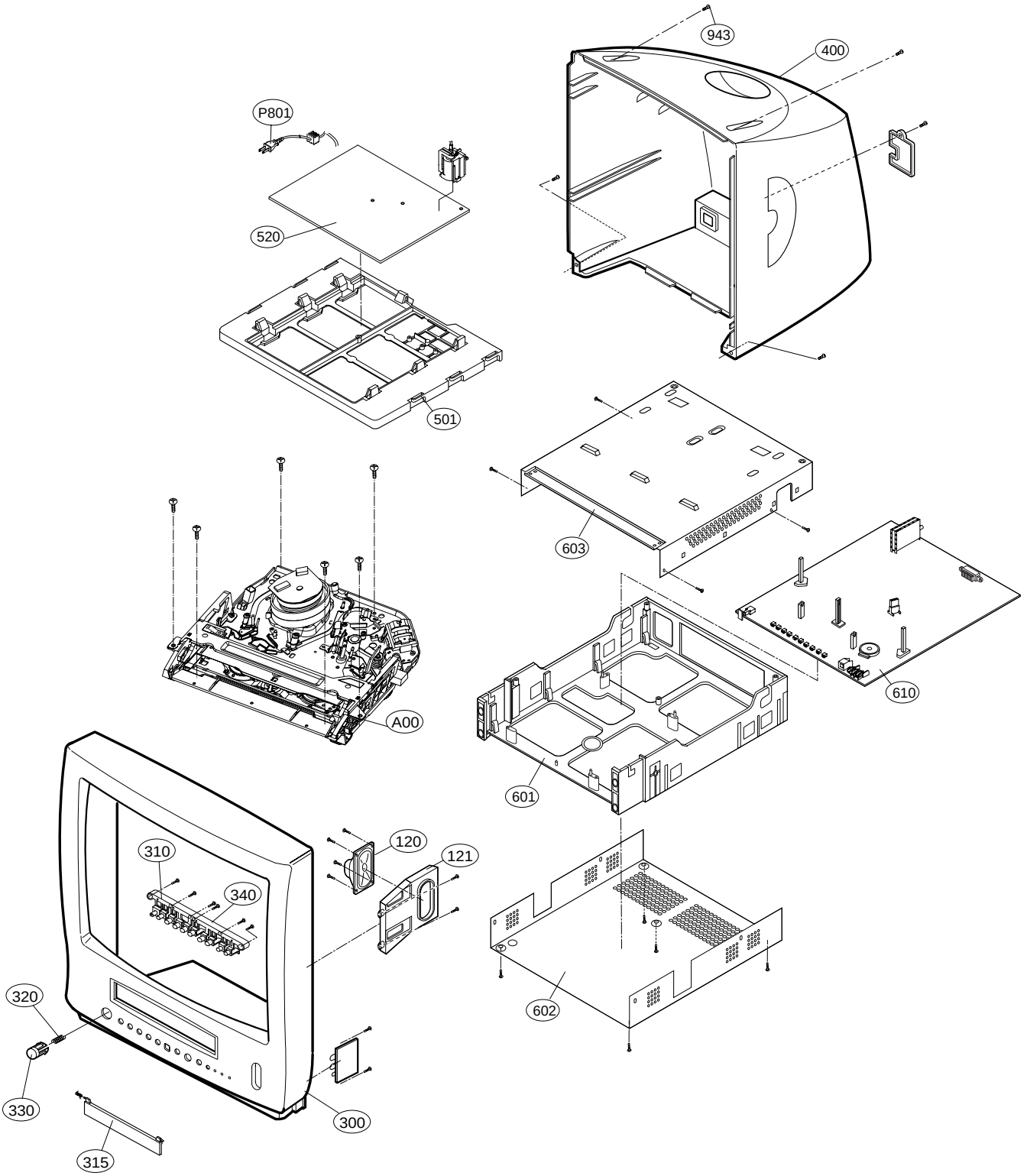

NO RASTER
Is there about 115V at pin 3 of T701?
NO
Go to NO POWER BLOCK
YES
Is there about 8V at pin 6 of P805?
NO
¡ Check/Replace F852, D850, R858, IC853, C863.
¡ Check the 8V LINE of VCD BOARD
YES
Does the square waveform appear at pin 1 of P805?
NO
¡ Check the H-OUT LINE of VCD BOARD.
¡ Check/Replace IC501 of VCD BOARD.
YES
Does the waveform appear at the collector of Q781?
NO
Check/Replace Q782, T781, R783, R787, Q781.
YES
Is there about 6.3VAC at HEATER of CPT SOCKET?
NO
Check/Replace T701, 5PIN CONNECTOR, FR901
YES
Go to NO PICTURE BLOCK


V. Deflection ERROR
Does the V-A, V-B signal appear at pin 4, 7 of P805?
NO
Check the vertical part of VCD
YES
Is there about 15V at pin 4 of IC701?
NO
Check/Replace FR702, D702, C704, L731
YES
Is there about 44V at pin 8 of IC701?
NO
Check;/Replace FR701, D701, C708, C734.
YES
Check/Replace IC701


NO PICTURE
Does the RGB signal appear at pin 3, 5, 7 of P901?
NO
Check the CVBS line of VCD
YES
Is there about 200V at pin 1 of P902?
NO
Check/Replace FR704, D703, C702, T701, 5PIN CONNECTOR, L901, R911
YES
¡ Check/Replace IC901.
¡ Check screen voltage


NO SOUND
Is there about 25V at pin 5 of IC601?
NO
Check/Replace FR854, D855, IC601.
YES
Does the sound signal appear at pin 9 of P805?
NO
Check the Audio source line of VCD
YES
Does the sound signal appear at pin 4 of IC601?
NO
¡ Check the voltage at collector of Q601.
¡ Check/Replace IC601, external components of IC601.
YES
Check/Replace speaker, speaker connector.

EXPLODED VIEW:14P2



EXPLODED VIEW PARTS LIST

The components identified by mark ⚠ is critical for safety.
Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTIONS
⚠ 112	2055-00744L	CPT SET A34KPU02XX 00N7ND
120	6400VA0019B	SPEAKER,G9050402(C93H)8 OHM
121	4810V00205A	BRACKET,SPK
⚠ 150	150-D02B	COIL,DEGAUSSING,CU 14” 42T 5.7 OHM
⚠ 153	153-113V	DY,DCAD2-14SNAB
⚠ 170	170-A01E	LEAD SET,CPT EARTH
300	3091V00251G	CABINET ASSY(BLUE)
	3091V00251C	CABINET ASSY(GREEN)
	3091V00251H	CABINET ASSY(PINK)
310	5020V00382A	BUTTON,CONTROL
315	3580V00014J	DOOR,CST(BLUE)
	3580V00014K	DOOR,CST(PINK)
	3580V00014W	DOOR,CST(GREEN)
320	320-075B	SPRING,KNOB
330	5020V00381A	BUTTON,POWER
340	5020V00383A	BUTTON,CONTROL
400	3809V00185B	BACK COVER ASSY(GREEN)
	3809V00185C	BACK COVER ASSY(BLUE)
	3809V00185D	BACK COVER ASSY(PINK)
501	4810V00012A	BRACKET,SMPS
520	6871VDM105A	PWB ASSY,MAIN2 14”,NARROW
601	4810V00195C	BRACKET,MAIN
602	4814V00158B	SHIELD,BOTTOM
603	4814V00157E	SHIELD,TOP CASE
610	6871VMM449A	PWB ASSY,MAIN KE,E/D/F,W/TXT,SCART
	6871VMM449B	PWB ASSY,MAIN KE,E/D/F,W/O TXT,SCART
	6871VMM449C	PWB ASSY,MAIN KL,E/D/F,W/O TXT,SCART
	6871VMM449D	PWB ASSY,MAIN KE,E/I/S,W/TXT,SCART
913	332-057A	SCREW ASSY,HEXAGON HEAD
943	1PTF0403116	SCREW,TAP TITE D4.0 L16.0
A00	6721R-0105B	DECK ASSY,D33(TV-33A2OMO 1KT2,2HD,NP
⚠ P801	174-009V	CORD,POWER(W/HOLD,HOUSING)L=400,4.0
	174-224G	CORD,POWER H03VVH2-F

REPLACEMENT PARTS LIST

1. Mechanical Section

NSP : Not Service Part

S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
ASSEMBLY PARTS SECTION						
		A00	6721R-0105B	DECK ASSY	D33	
		A01	6723R-D101B	DRUM(CIRC) ASSY	D33-2CH SP/EP (5M2)	
		A02	4261R-0012B	ARM ASSY	L/D MOTOR	
		A03	4261R-0015A	ARM ASSY	CLEANER	
		A04	4811R-0019A	BRACKET ASSY	L/D MOTOR	
		A11	4470R-0028A	GEAR ASSY	P3	
		A12	4470R-0026A	GEAR ASSY	P2	
		A21	4931R-0015A	HOLDER ASSY	CST	
		A22	4811R-0014A	BRACKET ASSY	DOOR	
		A23	4261R-0010A	ARM ASSY	F/L	
		A24	4510R-0019A	LEVER ASSY	SWITCH	
PARTS SECTION						
		012	3041R-0003A	BASE ASSY	P2	
		013	3041R-0004A	BASE ASSY	P3	
		014	3041R-0007A	BASE ASSY	P4	
		015	5870R-0001A	OPENER	LID	
		016	3041R-0005F	BASE ASSY	A/C HEAD(LGEC)	
		017	4408R-0001B	REEL	S	
		018	4970R-0054A	SPRING	SB	
		019	4421R-0003A	BRAKE ASSY	S	
		020	4970R-0053A	SPRING	TB	
		021	4421R-0004A	BRAKE ASSY	T	
		022	523-833D	HEAD	FE D33Y	
		023	4980R-0010A	SUPPORTER	CST	
		024	4261R-0013A	ARM ASSY	IDLER	
		025	4810R-0066A	BRACKET	L/D MOTOR	
		026	4681R-0008A	MOTOR ASSY	L/D	
		027	4470R-0025A	GEAR	WHEEL	
		028	4408R-0002B	REEL	T	
		029	4261R-0011B	ARM ASSY	PINCH (MOLD BEARING)	
		031	4970R-0052A	SPRING	TENSION	
		032	3141R-0002C	CHASSIS ASSY	D33Y	
		051	4400R-0005A	BELT	CAPSTAN	
		052	4680RA0002B	MOTOR(MECH)	CAPSTAN F2QSB06	
		053	4974R-0018A	GUIDE	RACK F/L	
		054	4470R-0037A	GEAR	RACK F/L	
		055	4470R-0033A	GEAR	DRIVE	
		056	4470R-0032A	GEAR	CAM	
		057	4470R-0036B	GEAR	CONNECT	
		060	4510R-0025B	LEVER	F/R	
		061	4265R-0002A	CLUTCH ASSY	D33	
		062	4470R-0044A	GEAR ASSY	UP/D	
		063	4970R-0051A	SPRING	UP/D	
		064	4470R-0034A	GEAR	SECTOR	
		065	4510R-0016A	LEVER	P3	
		066	4970R-0046A	SPRING	L/D	
		067	4470R-0029A	GEAR	P3	

S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
		068	4470R-0027A	GEAR	P2	
		069	4970R-0046A	SPRING	L/D	
		070	4510R-0015A	LEVER	P2	
		077	3300R-0157A	PLATE	SLIDER	
		078	4510R-0022A	LEVER	TENSION	
		079	3040R-0018A	BASE	TENSION(D-33K)	
		100	3301R-0029A	PLATE ASSY	TOP	
		101	4810R-0056A	BRACKET	SIDE(L)	
		103	4930R-0096A	HOLDER	SIDE(L)	
		104	4974R-0019A	GUIDE	CST	
		105	4930R-0098A	HOLDER	CST	
		106	4930R-0100A	HOLDER	SIDE(R)	
		107	4510R-0024A	LEVER	STOPPER(R)	
		108	4810R-0055A	BRACKET	SIDE(R)	
		109	5870R-0002A	OPENER	DOOR	
		110	4260R-0018A	ARM	F/L(L)	
		111	4970R-0055A	SPRING	F/L(L)	
		112	3070R-0001A	BODY	F/L	
		113	4970R-0056A	SPRING	F/L(R)	
		114	4260R-0019A	ARM	F/L(R)	
		115	4970R-0050A	SPRING	SWITCH	
		116	4510R-0020A	LEVER	SWITCH	
SCREW						
		401	1MPC0261418	PAN HEAD MACHINE SCREW +, -	+ D2.6 L4.0 MSWR3/FZY	
		406	1MEC0302018	PAN HEAD MACHINE SCREW S/W+	D3.0 L6.0 MSWR3/FZY	
		407	1APF0201718	SCREW TAP TITE(B), PAN HEAD		
		409	1MGC0302418	PAN HEAD MACN SCREW S/P WASH +	D3.0 L8.0, MSWR3/FZY	
		410	1APF0262218	SCREW TAP TITE(B), PAN HEAD	+ D2.6 L6.8 MSWR3/FZY	
		426	1MPC0302018	SCREW MACHINE	D3.0 L6.0 MSWR3/FZY	
NUT, WASHER						
		504	354-001B	WASHER	P.S D3.1XD6X0.5T	
		517	1WZZR-0004B	WASHER	STOPPER	
		518	1WZZR-0004A	WASHER	STOPPER	

The components identified by mark ⚠ is critical for safety.
Replace only with part number specified.

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
		IC
IC01	0IGS899602A	IC,LG8996-02A(GMS3977R-AA70F) 100
"	0IGS899603A	IC,LG8996-03A
IC01S	0ITO123800A	IC,TA1238N SECA
IC02	0IAL241600B	IC,AT24C16-10PC 8D EEPROM 16K
IC03	0ISS753300A	IC,KA7533Z RESET T0-92 TP 3.3V
IC04	0ISS753300A	IC,KA7533Z RESET T0-92 TP 3.3V
IC05	0ISA164500B	IC,LB1645N 10SIP BK MOTOR DRIVE I
IC06	0IMI350410R	IC,M35041-091FP 20SOP TP OSD
IC100	0ITF448800A	IC,U4488B 16DIP BK SIF+AM DEMODUL
IC101	0ISG405200B	IC,HCF4052BE 16P DIP BK
IC200	0ISA701600A	IC,LA7016 8S ANALOG S/W
IC201	0ISA701600A	IC,LA7016 8S ANALOG S/W
IC202	0ISA722200A	IC,LA7222 (1280 AUDIO)
IC301	0ISA715980A	IC,LA71598M 100QFP BK AVCP
IC500	0IPH884212A	IC,TDA8842(S1)/N2 56P,SDIP BK MUL
"	0IPH884112A	IC,TDA8841(S1)/N2 56P,SDIP *KE-
IC601	0ISG200600A	IC,TDA2006 5Z 1CHX10W AUDIO AMP.
IC701	0IPH835050A	IC,TDA8350Q/N6 13P,SIP BK V/DEF+E
IC801	0ISK670700B	IC,STR/S6707(LF.953) 9P (R5,R6)
⚠ IC802	0ISH123200B	IC,PC123 FY2 PHOTO COUPLER
⚠ IC803	0ISH123200B	IC,PC123 FY2 PHOTO COUPLER
IC851	0ISK110000A	IC,SE110N(LF12) 3P 110V ERROR AMP
IC852	0ISH052100A	IC,PQ05RF21 4P(TO-220) 5V S/W REG
IC853	0IKE780800J	IC,KIA7808API 3 ST REGULATOR .
IC855	0ISS781200H	IC,KA78R12 4P,TO-220F BK LOW DROP
IC856	0ISS781200H	IC,KA78R12 4P,TO-220F BK LOW DROP
IC857	0IKE780600F	IC,KA7806API 3 ST REGULATOR
IC901	0IPH610700A	IC,TDA6107Q SIP9 BK VIDEO OUT AMP
		DIODE
D01	0DD400309AD	DIODE,IN4003A RECT K-ROHM
D02	0DD400309AD	DIODE,IN4003A RECT K-ROHM
D03	0DD414809ED	DIODE,1N4148 TA
D04	0DD414809ED	DIODE,1N4148 TA
D05	0DD414809ED	DIODE,1N4148 TA
D07	0DD414809ED	DIODE,1N4148 TA
D18	0DD400309AD	DIODE,IN4003A RECT K-ROHM
D20	0DD414809ED	DIODE,1N4148 TA
D21	0DD414809ED	DIODE,1N4148 TA
D22	0DD414809ED	DIODE,1N4148 TA
D26	0DD400309AD	DIODE,IN4003A RECT K-ROHM
D100	0DD414809ED	DIODE,1N4148 TA
D101	0DD859009AA	DIODE,SILICON MA859
D102	0DD859009AA	DIODE,SILICON MA859
D301	0DD414809ED	DIODE,1N4148 TA
D500	0DD414809ED	DIODE,1N4148 TA
D501	0DD414809ED	DIODE,1N4148 TA
D502	0DD414809ED	DIODE,1N4148 TA
D503	0DD414809ED	DIODE,1N4148 TA
D504	0DD414809ED	DIODE,1N4148 TA
D505	0DD414809ED	DIODE,1N4148 TA

LOCA. NO	PART NO	DESCRIPTION
D506	0DD414809ED	DIODE,1N4148 TA
D507	0DD414809ED	DIODE,1N4148 TA
D509	0DD414809ED	DIODE,1N4148 TA
D510	0DD859009AA	DIODE,SILICON MA859
D511	0DD859009AA	DIODE,SILICON MA859
D512	0DD181009AB	DIODE,SWITCHING KDS181 85V 300MA
D602	0DD414809ED	DIODE,1N4148 TA
D603	0DD414809ED	DIODE,1N4148 TA
D701	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D702	0DD150009CA	DIODE,RECTIFIER RGP15J,TP(52MM)
D703	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D704	0DD414809ED	DIODE,1N4148 TA
D781	0DD150009CA	DIODE,RECTIFIER RGP15J,TP(52MM)
D805	0DD150009CE	DIODE,GP15J TP (1.5A/600V) GI
D806	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D807	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D808	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D809	0DD100009AL	DIODE,EH-1ZV(1)
D810	0DD414809ED	DIODE,1N4148 TA
D811	0DD414809ED	DIODE,1N4148 TA
D850	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D851	0DD560009AA	DIODE,RECTIFIER BYT56M
D852	0DD100009AE	DIODE,RECTIFIER RU1A V(1)
D853	0DD420000BB	DIODE,D4L20U SHINDENGEN
D854	0DD420000BB	DIODE,D4L20U SHINDENGEN
D855	0DD360009AA	DIODE,RECTIFIER BYW36 TP(2A/600V)
D858	0DD414809ED	DIODE,1N4148 TA
D859	0DD360009AA	DIODE,RECTIFIER BYW36 TP(2A/600V)
D860	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS
D904	0DD400309AD	DIODE,IN4003A RECT K-ROHM TP
⚠ DB801	0DD260000BD	DIODE,BRIDGE D2SBA60
ZD01	0DZ680009BB	DIODE,ZENER MTZJ6.8B TP ROHM-K
ZD02	0DZ510009AB	DIODE,ZENER MTZ5.1B,TP(52MM),ROHM
ZD100	0DZ330009BA	DIODE,ZENER HZT33(TP) HITACHI
ZD500	0DZ180009AG	DIODE,ZENER MTZJ18B TP ROHM-K
ZD601	0DZ620009BB	DIODE,ZENER MTZJ6.2B TP ROHM-K
ZD701	0DZ820009AH	DIODE,ZENER MTZJ8.2B TP ROHM-K
ZD702	0DZ820009AH	DIODE,ZENER MTZJ8.2B TP ROHM-K
ZD801	0DZ680009BB	DIODE,ZENER MTZJ6.8B TP ROHM-K
ZD860	0DZ110009AD	DIODE,ZENER MTZJ11B TP ROHM-K
ZD861	0DZ360009DA	DIODE,ZENER MTZ3.6B,(52MM) TP
ZD901	0DZ750009AG	DIODE,ZENER MTZJ7.5B TP ROHM-K
ZD902	0DZ750009AG	DIODE,ZENER MTZJ7.5B TP ROHM-K
ZD903	0DZ750009AG	DIODE,ZENER MTZJ7.5B TP ROHM-K
ZD904	0DZ750009AG	DIODE,ZENER MTZJ7.5B TP ROHM-K
		TRANSISTOR
Q02S	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q03	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
Q03S	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q04	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
Q07	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q08	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC

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LOCA. NO	PART NO	DESCRIPTION
Q100	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
Q104	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q105	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q106	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q108	0TR388109AA	TR,KTC3881 CHIP KEC
Q109	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q110	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q111	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q112	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
Q113	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
Q200	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q201	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q203	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q204	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q205	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q206	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q207	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q208	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
Q300	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q301	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q303	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q304	0TR320509AB	TR,KTC3205-Y (KTC2236A) TP KEC
Q305	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q306	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q307	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q308	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q309	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q312	0TR126609AA	TR,KTA1266-TP-Y (KTA1015) KEC
Q500	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q501	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q502	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
Q504	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q505	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q506	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q507	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q508	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q509	0TR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q510	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
Q601	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q602	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q781	0TR570200AA	TR,KSD5702 BK SAMSUNG TO3PF H-OUT
Q782	0TR320709AA	TR,KTC3207,TP(KTC2482),KEC
Q801	0TR385200AA	TR,2SC3852A SANKEN
Q853	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q854	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q860	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q861	0TR322809AA	TR,KTC3228-0 TP(KTC2383),KEC
Q862	0TR968000AA	TR,KTA968A-Y KEC

CAPACITOR

C04S	0CC1500K415	15P 50V J
C04J	0CN4710K519	470P 50V K B TA52

LOCA. NO	PART NO	DESCRIPTION
C05S	0CE107DF618	100UF STD 16V M
C06	0CE3363F618	33UF SRE 16V M
C06J	0CN1010K519	100P 50V K B TA52
C07	0CN2230H949	22000P 25V Z FTA52
C08S	0CE225DK618	2.2000UF STD 50V M
C09	0CE2263F618	22UF SRE 16V M
C10	0CC1800K415	18P 50V J NPO TP
C11	0CC1800K415	18P 50V J NPO TP
C12S	0CE107DF618	100UF STD 16V M
C14S	0CE474DK618	0.4700UF STD 50V M
C16	0CE4763F618	47UF SRE 16V M
C16S	0CN1030F679	10000P 16V M
C17S	0CE474DK618	0.4700UF STD 50V M
C19S	0CE106DF618	10UF STD 16V M
C32	0CE4753K618	4.7UF SRE 50V M
C36	0CQ4731N509	0.047U 100V K
C37	0CN1040K949	0.1M 50V Z
C38	181-007C	ECQ-V1H104JL3(TR)50V 0.1
C39	0CE4753K618	4.7UF SRE 50V M
C45	0CE107DF618	100UF STD 16V M
C47	0CE1074F618	100UF SRA 16V M
C48	0CE477DF618	470UF STD 16V M
C50	0CE4763F618	47UF SRE 16V M
C51	0CN1040K949	0.1M 50V Z
C52	0CE4763F618	47UF SRE 16V M
C53	0CE4763F618	47UF SRE 16V M
C54	181-002B	SUPER CAP.FSOH473Z
C55	0CQ3332K439	0.0330UF S 50V J
C56	0CE4763F618	47UF SRE 16V M
C58	0CE4763F618	47UF SRE 16V M
C61	0CE1063F616	10UF SRE 16V M
C63	0CE4763F618	47UF SRE 16V M
C72	0CC8200K415	82P 50V J
C73	0CC4700K415	47P 50V J
C74	0CE1053K618	1UF SRE 50V M
C80	0CE4763F618	47UF SRE 16V M
C84	0CE4763F618	47UF SRE 16V M
C85	0CE107DF618	100UF STD 16V M
C88	0CN1030F679	10000P 16V M Y
C100	0CE476DK618	47UF STD 50V M
C101	181-007C	ECQ-V1H104JL3(TR)50V 0.1
C105	0CE476DH618	47UF STD 25V M
C106	0CE475DK618	4.7000UF STD 50V M
C108	0CE476DF618	47UF STD 16V M
C111	0CN2230H949	22000P 25V Z
C114	0CN1030F679	10000P 16V M
C115	0CE107DF618	100UF STD 16V M
C118	0CE4753K618	4.7UF SRE 50V M
C119	0CE4753K618	4.7UF SRE 50V M
C120	181-007C	ECQ-V1H104JL3(TR)50V 0.1
C122	0CE476DK618	47UF STD 50V M FL TP5
C127	181-007C	ECQ-V1H104JL3(TR)50V 0.1

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LOCA. NO	PART NO	DESCRIPTION
C130	0CE476DF618	47UF STD 16V M
C132	0CE107DF618	100UF STD 16V M
C133	0CE107DD618	100UF STD 10V M
C200	0CE106DF618	10UF STD 16V M
C201	0CE475DK618	4.7000UF STD 50V M
C202	0CE476DF618	47UF STD 16V M
C203	0CE107DF618	100UF STD 16V M
C204	0CE476DF618	47UF STD 16V M
C207	0CE106DF618	10UF STD 16V M
C210	0CE474DK618	0.4700UF STD 50V M
C214	0CE475DK618	4.7000UF STD 50V M
C220	0CE107DF618	100UF STD 16V M
C223	0CE106DF618	10UF STD 16V M
C224	0CE476DF618	47UF STD 16V M
C226	0CE337DF618	330UF STD 16V M
C227	0CN4710K519	470P 50V K B TA52
C234	0CE1063F618	10UF SRE 16V M
C235	0CE106DF618	10UF STD 16V M
C237	0CE1063F618	10UF SRE 16V M
C238	0CE106DF618	10UF STD 16V M
C241	0CE475DK618	4.7000UF STD 50V M
C244	0CE106DF618	10UF STD 16V M
C302	0CQ1031N509	0.01U 100V K
C303	0CE4753K618	4.7UF SRE 50V M
C305	0CQ1531N509	0.015U 100V K
C306	0CE4763F618	47UF SRE 16V M
C307	0CQ2231N509	0.022U 100V K
C309	0CE1074F618	100UF SRA 16V M
C310	0CQ2221N509	0.0022U 100V K
C313	0CE1053K618	1UF SRE 50V M
C316	0CE1053K618	1UF SRE 50V M
C329	0CE1063F618	10UF SRE 16V M
C330	0CE1063F618	10UF SRE 16V M
C332	0CE2253K618	2.2000UF SRE 50V M
C333	0CN1040K949	0.1M 50V Z
C334	0CN1040K949	0.1M 50V Z
C335	0CN1040K949	0.1M 50V Z
C336	0CN2230H949	22000P 25V Z
C338	0CE4763F618	47UF SRE 16V M
C340	0CE4763F618	47UF SRE 16V M
C341	0CE1053K618	1UF SRE 50V M
C342	0CE1063F618	10UF SRE 16V M
C343	0CE1053K618	1UF SRE 50V M
C347	0CN1030F679	10000P 16V M
C350	0CE1074F618	100UF SRA 16V M
C351	0CE4763F618	47UF SRE 16V M
C353	0CN1030F679	10000P 16V M
C355	0CE4753K618	4.7UF SRE 50V M
C356	0CN2230H949	22000P 25V Z
C357	0CE4753K618	4.7UF SRE 50V M
C359	0CE1053K618	1UF SRE 50V M
C365	0CE4763F618	47UF SRE 16V M

LOCA. NO	PART NO	DESCRIPTION
C367	0CQ2242K439	0.2200UF S 50V J
C368	0CE1063F618	10UF SRE 16V M
C369	0CQ2242K439	0.2200UF S 50V J
C370	0CE3363F618	33UF SRE 16V M
C371	0CQ2242K439	0.2200UF S 50V J
C377	0CE1074F618	100UF SRA 16V M
C379	0CE1053K618	1UF SRE 50V M
C381	0CE335DK618	3.3000UF STD 50V M
C389	0CE2263F618	22UF SRE 16V M
C390	0CE2253K618	2.2000UF SRE 50V M
C396	0CE107DF618	100UF STD 16V M
C398	0CE475DK618	4.7000UF STD 50V M
C504	0CE225DK618	2.2000UF STD 50V M
C506	0CE476DF618	47UF STD 16V M FL TP5
C507	181-007F	ECQ-V1H224JL3(TR)50V 0.2
C509	0CE107DF618	100UF STD 16V M FL TP5
C510	181-007F	ECQ-V1H224JL3(TR)50V 0.2
C512	181-007C	ECQ-V1H104JL3(TR)50V 0.1
C519	0CE104DK618	0.1000UF STD 50V M
C528	0CE1074F618	100UF SRA 16V M
C529	0CQ4731N509	0.047U 100V K
"	0CQ1041N509	0.1U 100V K *KE-
C530	0CC6200K415	62PF 50V J NP0 TR
"	0CQ1021N509	0.001U 100V K *KE-
C531	0CE104DK618	0.1000UF STD 50V M
C532	0CE225DK618	2.2000UF STD 50V M
C534	0CE105DK618	1UF STD 50V M FL TP5
C536	0CE684DK618	0.6800UF STD 50V M
C540	0CQ1041N455	0.1000UF 100V J
C541	0CSZVTA001G	2.2UF 25V K FM5 TP 5
"	0CSZVTA001C	TAP105K025BRS *KE-
C544	0CE106DH618	10UF STD 25V M FL TP5
C545	181-007C	ECQ-V1H104JL3(TR)50V 0.1
C546	0CC2710K415	270P 50V J
C547	0CN2710K519	270P 50V K B TA52
C548	181-007G	ECQ-V1H334JL3(TR)50V 0.3
C601	0CE475DK618	4.7000UF STD 50V M
C602	0CE226DK618	22UF STD 50V M
C603	0CQ3931N509	0.0390UF 100V K
C604	0CE106DH618	10UF STD 25V M
C605	0CQ1041N509	0.1U 100V K
C606	0CE227DJ618	220UF STD 35V M
C607	0CE227DF618	220UF STD 16V M
C608	0CN1010K519	100P 50V K B TA52
C609	0CE106DF618	10UF STD 16V M
C610	0CE475DK618	4.7000UF STD 50V M
C701	181-009V	PP 200V 0.047UF K
C702	0CE226CR618	22UF SHL,SD 250V M
C703	0CK4710W515	470PF 500V K B TR
C704	0CE337DK618	330UF STD 50V M
C705	0CK4710W515	470PF 500V K B TR
C706	0CQ1031N509	0.01U 100V K

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LOCA. NO	PART NO	DESCRIPTION
C708	0CE106DN618	10UF STD 100V M
C709	0CK4710W515	470PF 500V K B TR
C731	0CN1010K519	100P 50V K B TA52
C732	0CQ1041N509	0.1U 100V K
C733	0CE337DK618	330UF STD 50V M
C734	0CE226DN618	22UF STD 100V M
C736	0CQ1031N509	0.01U 100V K
C738	0CN3910K519	390P 50V K B TA52
C739	0CN1040K949	0.1M 50V Z F TA52
C741	0CQ1041N509	0.1U 100V K
C743	0CQ1041N509	0.1U 100V K
C781	181-015G	MPP 1600V 0.0077UF H
C782	0CE105DP618	1UF STD 160V M
C783	0CK3310W515	330P 500V K
C784	0CN3310K519	330P 50V K
C785	0CE225CP618	2.2UF SHL,SD 160V M
C787	181-013B	MPP 200V 0.36UF J
⚠ C801	0CQZVBK002A	A.C 275V 0.1UF M (S=15)
⚠ C802	0CQZVBK002A	A.C 275V 0.1UF M (S=15)
C805	0CK10201515	1000P 1KV K B TS
C806	181-001F	CE 400V 220UF M
C807	0CK10201515	1000P 1KV K B TS
C808	0CK1020W515	1000P 500V K
C809	0CE106DN618	10UF STD 100V M
C810	0CE227DF618	220UF STD 16V M
C811	181-014A	MPP 1600V 0.0022UF J
C812	181-091J	DE1107-486 R 821K 2KV
⚠ C813	181-120K	ACT 4KV E 222M
C814	0CE107DJ618	100UF STD 35V M
C816	0CQ1041N509	0.1U 100V K
C850	0CK4710W515	470PF 500V K
C851	181-091C	DE0705-979 R 471K 1KV
C852	0CK4710W515	470PF 500V K B TR
C853	0CK4710W515	470PF 500V K B TR
C854	0CK4710W515	470PF 500V K B TR
C855	0CK4710W515	470PF 500V K B TR
C856	0CE107DN618	100UF STD 100V M
C857	0CE108DF618	1000UF STD 16V M
C858	0CE108DH618	1000UF STD 25V M
C859	0CE108DJ618	1000UF STD 35V M
C860	0CE227DP61A	220UF STD 160V M
C862	0CE108DF618	1000UF STD 16V M
C863	0CE477DF618	470UF STD 16V M
C865	0CE107CP618	100U SHL 160V M
C866	0CE477DF618	470UF STD 16V M
C867	0CE477DH618	470UF STD 25V M
C868	0CE228DF618	2200UF STD 16V M
C869	181-091C	DE0705-979 R 471K 1KV
C870	0CQ1031N509	0.01U 100V K
C871	0CE106DF618	10UF STD 16V M
C872	0CE106DF618	10UF STD 16V M
C874	0CE477DF618	470UF STD 16V M FL
C875	0CE228DD618	2200UF STD 10V M FL
C876	0CE474CK636	0.47UF SHL,SD 50V M
C901	0CQ1042R539	0.1UF S 250V K M/PE
C904	181-033T	2KV B 222K TP7.5
C905	0CE475DR618	4.7000UF STD 250V M
C906	0CE475DR618	4.7000UF STD 250V M

CORE

FB801	125-022K	CORE (CIRC),FERRITE 1UH
FB802	125-123A	CORE (CIRC),FERRITE BFD3565R2F
FB803	125-022K	CORE (CIRC),FERRITE 1UH
⚠ FB851	125-022K	CORE (CIRC),FERRITE 1UH
L04J	125-022K	CORE (CIRC),FERRITE 1UH
L222	125-022K	CORE (CIRC),FERRITE 1UH
L510	125-022K	CORE (CIRC),FERRITE 1UH
L902	125-022K	CORE (CIRC),FERRITE 1UH

COIL & TRANSFORMER

L01J	0LA0102K119	INDUCTOR,10UH K
L01S	0LA0222K119	INDUCTOR,22UH K
L01	0LA1000K139	INDUCTOR,100UH K
L02J	0LA0102K119	INDUCTOR,10UH K
L02S	0LA0222K119	INDUCTOR,22UH K
L02	0LA1000K139	INDUCTOR,100UH K
L03J	0LA0102K119	INDUCTOR,10UH K
L03	0LA1000K139	INDUCTOR,100UH K
L04	0LA1000K139	INDUCTOR,100UH K
L05J	0LA0101K119	INDUCTOR,1.0UH K
L05	0LA1000K139	INDUCTOR,100UH K
L06	0LA0821K119	INDUCTOR,8.2UH K
L07	0LA0222K119	INDUCTOR,22UH K
L10	0LA1000K119	INDUCTOR,100UH K
L11	0LA0222K119	INDUCTOR,22UH K
L12	0LA0222K119	INDUCTOR,22UH K
L13	0LA0222K119	INDUCTOR,22UH K
L101	0LA0222K119	INDUCTOR,22UH K
L102	150-C01G	COIL,CHOKE 1.0UH A 1105
L103	0LA0102K119	INDUCTOR,10UH K
L104	0LA0102K119	INDUCTOR,10UH K
L105	0LA0102K119	INDUCTOR,10UH K
L106	0LA0122K119	INDUCTOR,12UH K
L107	150-E16C	COIL,IFT VAR,07S 1B 38.9MHZ
L108	0LA0102K139	INDUCTOR,10UH K
L144	0LA0102K119	INDUCTOR,10UH K
L200	0LA0102K119	INDUCTOR,10UH K
L201	0LA0102K119	INDUCTOR,10UH K
L203	0LA0102K119	INDUCTOR,10UH K
L204	0LA0102K119	INDUCTOR,10UH K
L205	0LA0102K119	INDUCTOR,10UH K
L206	0LA0102K119	INDUCTOR,10UH K
L207	0LA1000K119	INDUCTOR,100UH K
L209	0LA1000K119	INDUCTOR,100UH K

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Replace only with part number specified.

For Capacitor & Resistors, the charactors at 2nd and 3rd digit in the P/No. means as follows;
CC, CX, CK, CN : Ceramic
CQ : Polyestor
CE : Electrolytic
RD : Carbon Film
RS : Metal Oxide Film
RN : Metal Film
RF : Fusible

LOCA. NO	PART NO	DESCRIPTION
L300	0LA0222K119	INDUCTOR,22UH K
L301	0LA0562K119	INDUCTOR,56UH K
L302	0LA0332K119	INDUCTOR,33UH K
L303	0LA0222K119	INDUCTOR,22UH K
L306	0LA0222K119	INDUCTOR,22UH K
L307	0LA0222K119	INDUCTOR,22UH K
L309	0LA0272K119	INDUCTOR,27UH K
L391	0LA0102K119	INDUCTOR,10UH K
L500	0LA0331K119	INDUCTOR,3.3UH K
L501	0LA0331K119	INDUCTOR,3.3UH K
L502	0LA0821K119	INDUCTOR,8.2UH K
L503	0LA0102K119	INDUCTOR,10UH K
L504	0LA0561K119	INDUCTOR,5.6UH K
L505	0LA0561K119	INDUCTOR,5.6UH K
L506	0LA0561K119	INDUCTOR,5.6UH K
L507	0LA0102K139	INDUCTOR,10UH K
L508	0LA0102K119	INDUCTOR,10UH K
L509	0LA0102K119	INDUCTOR,10UH K
L733	0LA0102K139	INDUCTOR,10UH K
L734	0LA0102K139	INDUCTOR,10UH K
L782	150-L01W	COIL,H-LINEARITY 57UH
L851	150-C02E	COIL,CHOKE 50UH R 1217
L901	0LR0102K520	INDUCTOR,10M K 4X5
T300	633-032N	COIL,CAN BIAC OSC DEO-010 KSE
T301	150-B05C	COIL,L/C FILTER(07S) LPF
⚠ T701	6174Z-6022E	FBT,FTMPN91
⚠ T781	151-C02H	TRANSFORMER,H-DRIVE,EI-19,BULK
⚠ T801	151-A13J	TRANSFORMER,SMPS EER4215 700UH

RESISTOR

F851	180-D02Y	0.045 OHM 1/2 W 10%
F852	180-D02Y	0.045 OHM 1/2 W 10%
F853	180-D02Y	0.045 OHM 1/2 W 10%
⚠ FR701	0RF0561J607	5.60 1W 5% TA62
⚠ FR702	0RF0470J607	0.47 1W 5% TA62
⚠ FR704	0RF0101H609	1.0 1/2W 5 TA52
FR851	0RF0470H609	0.47 1/2W 5 TA52
⚠ FR854	0RF0101J607	1 1W 5% TA62
FR901	180-D02L	CR 2W 2.0 J
FR902	180-D02E	CR 2W 1.0 J
R01J	0RD1000F609	100 1/6W 5 TA52
R01	0RD1001F609	1.0K 1/6W 5 TA52
R02	0RD1001F609	1.0K 1/6W 5 TA52
R02J	0RD2203F609	220K 1/6W 5 TA52
R03	0RD1001F609	1.0K 1/6W 5 TA52
R04J	0RD0752F609	75 1/6W 5% TA
R04	0RD1001F609	1.0K 1/6W 5 TA52
R05J	0RD2000F609	200 1/6W 5 TA52
R06	0RD1001F609	1.0K 1/6W 5 TA52
⚠ R06J	0RD2000F609	200 1/6W 5 TA52
R07J	0RD4300F609	430 1/6W 5 TA52
R08	0RD1001F609	1.0K 1/6W 5 TA52
R08S	0RD5600F609	560 1/6W 5 TA52
R09S	0RD1000F609	100 1/6W 5 TA52
R09	0RD1001F609	1.0K 1/6W 5 TA52
R10	0RD1000F609	100 1/6W 5 TA52
R11	0RD1000F609	100 1/6W 5 TA52
R12	0RD1000F609	100 1/6W 5 TA52
R14	0RD2200F609	220 1/6W 5 TA52
R17	0RD5601F609	5.6K 1/6W 5 TA52
R18	0RD1001F609	1.0K 1/6W 5 TA52
R19	0RD1001F609	1.0K 1/6W 5 TA52
R20	0RD2200F609	220 1/6W 5 TA52
R22	0RD2200F609	220 1/6W 5 TA52
R23	0RD2200F609	220 1/6W 5 TA52
R24	0RD2200F609	220 1/6W 5 TA52
R25	0RD2200F609	220 1/6W 5 TA52
R26	0RD2200F609	220 1/6W 5 TA52
R27	0RD1002F609	10K 1/6W 5 TA52
R28	0RD2200F609	220 1/6W 5 TA52
R31	0RD4701F609	4.70K 1/6W 5% TA52
R33	0RD2200F609	220 1/6W 5 TA52
R38	0RD4701F609	4.70K 1/6W 5% TA52
R42	0RD3300F609	330 1/6W 5 TA52
R43	0RD2200F609	220 1/6W 5 TA52
R45	0RD2200F609	220 1/6W 5 TA52
R46	0RD2200F609	220 1/6W 5 TA52
R55	0RD5600F609	560 1/6W 5 TA52
R57	0RD1000F609	100 1/6W 5 TA52
R59	0RD1801F609	1.8K 1/6W 5 TA52
R67	0RD8201F609	8.2K 1/6W 5 TA52
R68	0RD1801F609	1.8K 1/6W 5 TA52
R69	0RD1001F609	1.0K 1/6W 5 TA52
R74	0RD5602F609	56K 1/6W 5 TA52
R77	0RD1001F609	1.0K 1/6W 5 TA52
R90	0RD2200F609	220 1/6W 5 TA52
R92	0RD4701F609	4.70K 1/6W 5% TA52
R97	0RD5601F609	5.6K 1/6W 5 TA52
R98	0RD5601F609	5.6K 1/6W 5 TA52
R99	0RS0561K607	5.60 2W 5% TA62
R101	0RD4702F609	47K 1/6W 5 TA52
R102	0RD1001H609	1K OHM 1/2 W 5% TA52
R109	0RD3302F609	33K 1/6W 5% TA52
R110	0RD1001F609	1.0K 1/6W 5 TA52
R112	0RD0102F609	10 1/6W 5 TA52
R125	0RD1004F609	1.0M 1/6W 5 TA52
R128	0RD1000F609	100 1/6W 5 TA52
R144	0RD4701F609	4.70K 1/6W 5% TA52
R146	0RD0102F609	10 1/6W 5 TA52
R147	0RD1001F609	1.0K 1/6W 5 TA52
R148	0RD1001F609	1.0K 1/6W 5 TA52
R149	0RD1001F609	1.0K 1/6W 5 TA52
R153	0RD1002F609	10K 1/6W 5 TA52
R154	0RD4701F609	4.70K 1/6W 5% TA52

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CQ : Polyestor
CE : Electrolytic

RD : Carbon Film
RS : Metal Oxide Film
RN : Metal Film
RF : Fusible

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Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTION
R205	0RD4701F609	4.70K 1/6W 5% TA52
R208	0RD1502F609	15K 1/6W 5 TA52
R214	0RD4700F609	470 1/6W 5 TA52
R215	0RD1000F609	100 1/6W 5 TA52
R219	0RD0682F609	68 1/6W 5 TA52
R220	0RD5101F609	5.1K 1/6W 5 TA52
R221	0RD5101F609	5.1K 1/6W 5 TA52
R224	0RD1001F609	1.0K 1/6W 5 TA52
R235	0RD1000F609	100 1/6W 5 TA52
R237	0RD1002F609	10K 1/6W 5 TA52
R238	0RD1001F609	1.0K 1/6W 5 TA52
R302	0RD1000F609	100 1/6W 5 TA52
R309	0RD5600F609	560 1/6W 5 TA52
R319	0RD1002F609	10K 1/6W 5 TA52
R321	0RD1001F609	1.0K 1/6W 5 TA52
R333	0RD1000F609	100 1/6W 5 TA52
R334	0RD1000F609	100 1/6W 5 TA52
R348	0RD1001F609	1.0K 1/6W 5 TA52
R360	0RD2202F609	22K 1/6W 5 TA52
R361	0RD1001F609	1.0K 1/6W 5 TA52
R363	0RD4702F609	47K 1/6W 5 TA52
R364	0RD4702F609	47K 1/6W 5 TA52
R365	0RD4702F609	47K 1/6W 5 TA52
R380	0RD1000F609	100 1/6W 5 TA52
R381	0RD1000F609	100 1/6W 5 TA52
R382	0RD1000F609	100 1/6W 5 TA52
R508	0RD0472F609	47 1/6W 5% TA
R512	0RD1002F609	10K 1/6W 5 TA52
R515	0RD1001F609	1.0K 1/6W 5 TA52
R516	0RD1001F609	1.0K 1/6W 5 TA52
R517	0RD1001F609	1.0K 1/6W 5 TA52
R521	0RD1003F609	100K 1/6W 5 TA52
R529	0RN3902F409	39K 1/6W 1% TA52
R530	0RD1201F609	1.2K 1/6W 5 TA52
R601	0RD1003F609	100K 1/6W 5 TA52
R602	0RD1003F609	100K 1/6W 5 TA52
R603	0RD5102F609	51K 1/6W 5 TA52
R604	0RS0221H609	2.2 1/2W 5 TA52
R605	0RD6802F609	68K 1/6W 5 TA52
R606	0RD8201F609	8.2K 1/6W 5 TA52
R607	0RD4701F609	4.70K 1/6W 5% TA52
R608	0RD4701F609	4.70K 1/6W 5% TA52
R609	0RD1001F609	1.0K 1/6W 5 TA52
R610	0RD1201F609	1.2K 1/6W 5 TA52
R611	0RD1003F609	100K 1/6W 5 TA52
R702	0RS5101H609	5.1K 1/2W 5 TA52
R703	0RD6201F609	6.2K 1/6W 5 TA52
R704	0RD2003H609	200K 1/2W 5 TA52
R706	0RD4701H609	4.7K 1/2W 5 TA52
R731	0RN2001F409	2K 1/6W 1% TA52
R733	0RN0680J607	0.68 1W 5% TA62
R734	0RD0202F609	20 1/6W 5 TA52

LOCA. NO	PART NO	DESCRIPTION
R735	0RS0222H609	22 1/2W 5 TA52
R739	0RS2200J607	220 1W 5% TA62
R740	0RN3901F409	3.90K 1/6W 1% TA52
R781	0RD0392H609	39 1/2W 5 TA52
R782	0RD3301H609	3.3K 1/2W 5 TA52
R783	0RS5601K607	5.60K 2W 5% TA62
R784	0RD4700F609	470 1/6W 5 TA52
R785	180-B01M	RS RECT S 5W 7.5K J
R786	0RS1801J607	1.80K 1W 5% TA62
R787	0RS6801K607	6.80K 2W 5% TA62
R788	0RD0912F609	91 1/6W 5 TA52
R801	180-A03A	RW RECT G 5W 2.20 J
R805	0RS2202K607	22K 2W 5% TA62
R806	0RS2202K607	22K 2W 5% TA62
R807	0RS1202H609	12K 1/2W 5 TA52
R808	0RD1801F609	1.8K 1/6W 5 TA52
R809	0RD1001F609	1.0K 1/6W 5 TA52
R810	0RS0222K607	22 2W 5% TA62
R811	180-A01H	RW ROUND G 2W 0.27 J
R812	0RD5600F609	560 1/6W 5 TA52
⚠ R813	0RKZVTA001C	8.2M OHM 1/2 W 5%
R816	0RD3900F609	390 1/6W 5 TA52
R821	0RD6801H609	6.8K 1/2W 5 TA52
R822	0RD1000H609	100 OHM 1/2 W 5% TA52
R823	0RD4701F609	4.70K 1/6W 5% TA52
R824	0RD4701F609	4.70K 1/6W 5% TA52
R825	0RD6801F609	6.8K 1/6W 5 TA52
R851	0RD4701F609	4.70K 1/6W 5% TA52
R852	0RD3301F609	3.3K 1/6W 5 TA52
R853	0RD2001F609	2.0K 1/6W 5 TA52
R854	0RD1001F609	1.0K 1/6W 5 TA52
R855	0RD1001F609	1.0K 1/6W 5 TA52
R856	0RD1002F609	10K 1/6W 5 TA52
R857	0RD4701F609	4.70K 1/6W 5% TA52
R858	0RF0470H609	0.47 1/2W 5 TA52
R860	0RS4700J607	470 1W 5% TA62
R865	0RF0101K607	1 2W 5% TA62
R866	0RS0470J607	0.47 1W 5% TA62
R867	0RS0470K607	0.47 2W 5% TA62
R870	0RD1002F609	10K 1/6W 5 TA52
R871	0RD2002F609	20K 1/6W 5 TA52
R872	0RD2002H609	20K 1/2W 5 TA52
R873	0RD1001H609	1K OHM 1/2 W 5% TA52
R874	0RS0102J607	10 1W 5% TA62
R903	0RD2200F609	220 1/6W 5 TA52
R904	0RS1801H609	1.8K 1/2W 5 TA52
R905	0RS1801H609	1.8K 1/2W 5 TA52
R906	0RS1801H609	1.8K 1/2W 5 TA52
R907	0RD2204H609	2.2M 1/2W 5 TA52
R908	0RD2200F609	220 1/6W 5 TA52
R909	0RD2200F609	220 1/6W 5 TA52
R910	0RD1000F609	100 1/6W 5 TA52

The components identified by mark ⚠ is critical for safety.
Replace only with part number specified.

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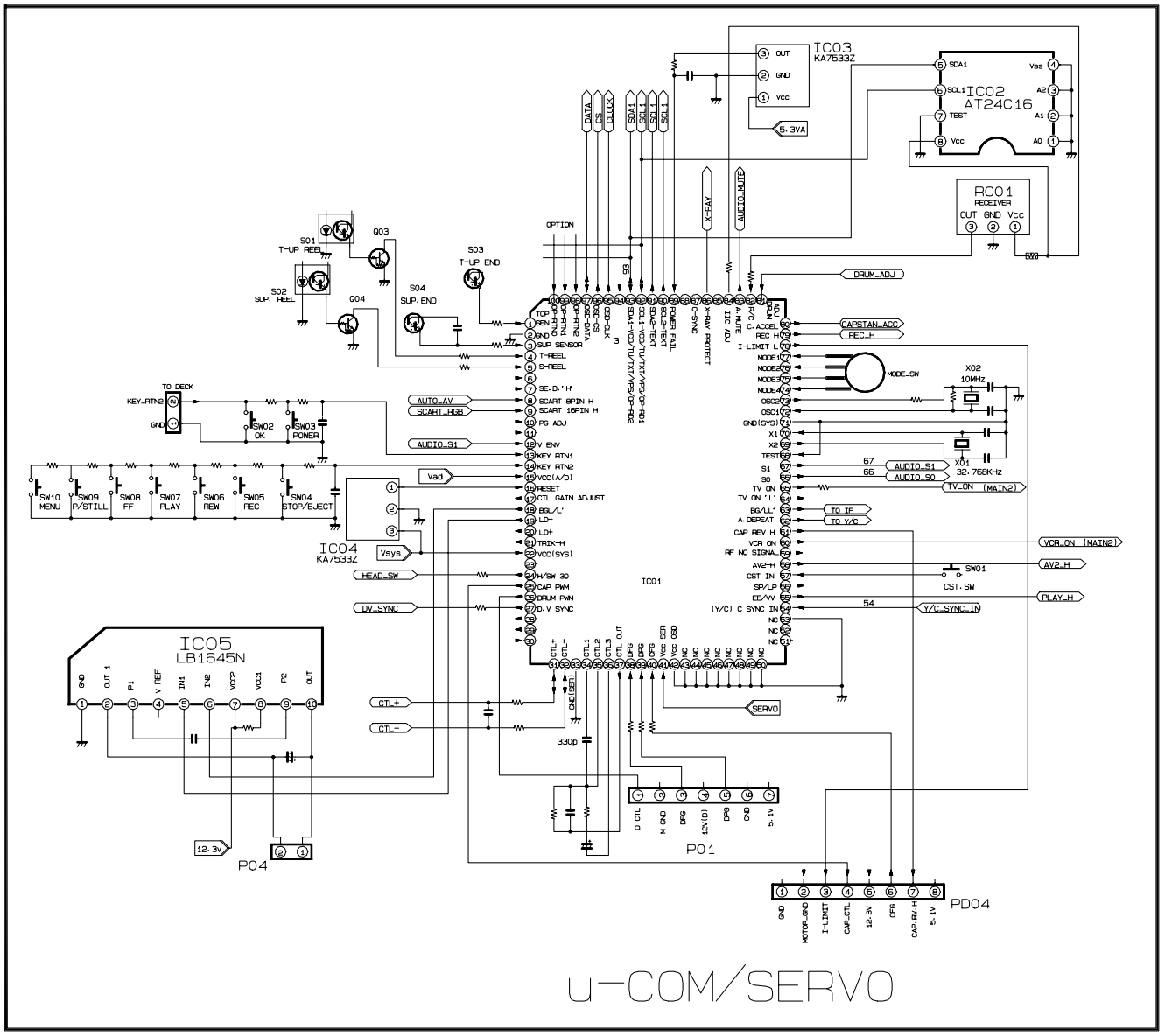
CQ : Polyestor
CE : Electrolytic
RD : Carbon Film
RS : Metal Oxide Film
RN : Metal Film
RF : Fusible

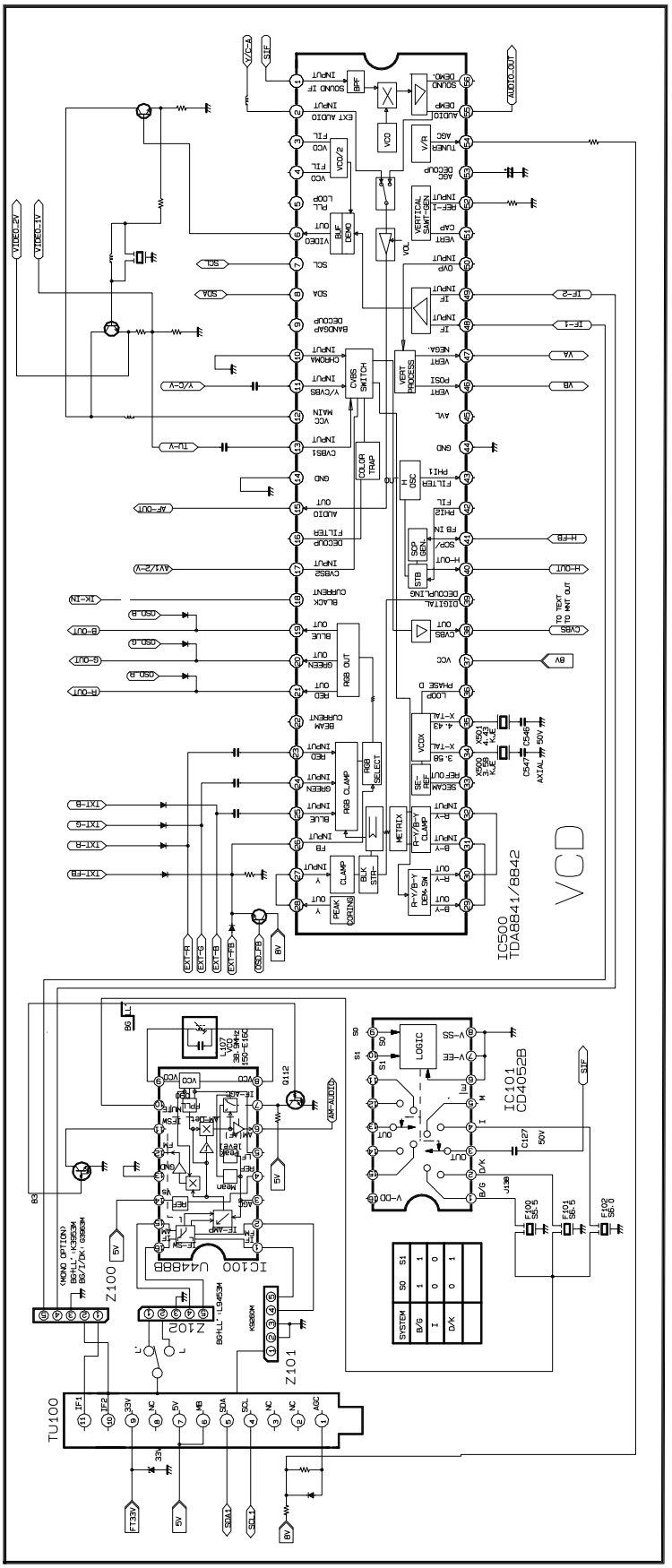
LOCA. NO	PART NO	DESCRIPTION
R911	0RD1000F609	100 1/6W 5 TA52
R912	0RD1000F609	100 1/6W 5 TA52
RA07	0RD3902F609	39K 1/6W 5 TA52
RA11	0RD3902F609	39K 1/6W 5 TA52
RA20	0RD4700F609	470 1/6W 5 TA52
RA22	0RD5600F609	560 1/6W 5 TA52
RA23	0RD4700F609	470 1/6W 5 TA52
RA30	0RD2700F609	270 1/6W 5 TA52
RA33	0RD1202F609	12K 1/6W 5 TA52
RA34	0RD1000F609	100 1/6W 5 TA52
VR01	180-F03M	EVN-DJAA03 B204
SWITCH		
SW01	6600RDB004C	SWITCH,DETECTOR MPU10252MLB4 5V 0.01A
SW03	140-315C	SWITCH,TACT 4LEAD EVQPB905X
SW04	140-315C	SWITCH,TACT 4LEAD EVQPB905X
SW05	140-315C	SWITCH,TACT 4LEAD EVQPB905X
SW06	140-315C	SWITCH,TACT 4LEAD EVQPB905X
SW07	140-315C	SWITCH,TACT 4LEAD EVQPB905X
SW08	140-315C	SWITCH,TACT 4LEAD EVQPB905X
SW11	140-315C	SWITCH,TACT 4LEAD EVQPB905X
SW12	140-315C	SWITCH,TACT 4LEAD EVQPB905X
SW13	140-315C	SWITCH,TACT 4LEAD EVQPB905X
SW14	140-315C	SWITCH,TACT 4LEAD EVQPB905X
⚠ SW804	6600VM1001A	SWITCH,PUSH SDKLA1 250V 5A
FILTER & CRYSTAL		
F100	166-B02C	FILTER(CIRC),SFSH5.5MCB-TF21
F101	166-B02E	FILTER(CIRC),SFSH6.5MCB-TF21
F102	166-B02D	FILTER(CIRC),SFSH6.0MCB-TF21
L100	166-F01G	FILTER,DSS306-93FZ103N
L801	150-F06H	FILTER(CIRC),SQE2930 30MH
T101	166-C06D	FILTER(CIRC),MKT40.4MA110P-TF01
T102	166-C06D	FILTER(CIRC),MKT40.4MA110P-TF01
T500	166-C02C	FILTER(CIRC),TPS5.5MB-TF21 MURATA
"	166-C04B	FILTER(CIRC),TPWA03B-TF21 *KE-
X01S	156-A01X	CRYSTAL,HC49U KJE RADIAL 4.286MHZ
X01	156-A08A	CRYSTAL,HC49U DISHINKU RADIAL 32.768KH
X02	156-A01T	CRYSTAL,HC49U SUNNY RADIAL 10.000MHZ
X301	6202R1443AC	CRYSTAL,X-TAL 4.433709M 15PPM
X500	156-A01C	CRYSTAL,HC49U KJE RADIAL 3.579545MHZ
X501	156-A01V	CRYSTAL,HC49U KJE RADIAL 4.433619MHZ
Z100	166-A01B	FILTER,OFWK3953M 37.4MHZ
"	6200VQS001M	FILTER(CIRC),OFWG3963M *KE-
Z101	6200VQS001D	FILTER(CIRC),OFWK9260M 38.9MHZ
Z102	166-A01L	FILTER,OFWL9453M
TELETEXT PARTS		
C04T	0CE107DF618	100UF STD 16V M
C05T	0CC3300K415	33P 50V J
C06T	0CC3300K415	33P 50V J
C07T	0CE106DF618	10UF STD 16V M

LOCA. NO	PART NO	DESCRIPTION
C08T	0CQ3332K439	0.0330UF S 50V J
C10T	0CE107DF618	100UF STD 16V M
C11T	0CN1030F679	10000P 16V M
C12T	0CE107DF618	100UF STD 16V M
C23T	0CE476DF618	47UF STD 16V M
C24T	181-007G	ECQ-V1H334JL3(TR),50V 0.3
IC01T	0ISM545400A	IC,SDA5454-B001 52P SDIP BK TXT
IC03T	0ISS753300A	IC,KA7533Z RESET T0-92 TP 3.3V
L01T	0LA0102K119	INDUCTOR,10UH K
L02T	0LA0102K119	INDUCTOR,10UH K
L03T	0LA0102K119	INDUCTOR,10UH K
L08T	0LA0102K119	INDUCTOR,10UH K
Q01T	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q02T	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q03T	0TR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q04T	0TR102009AG	TR,CHIP KRC102S SOT-23 TP KEC
R01T	0RD1000F609	100 1/6W 5 TA52
R02T	0RD1000F609	100 1/6W 5 TA52
R05T	0RN2702F409	27K 1/6W 1% TA52
X01T	156-A01L	CRYSTAL,HC49U 6.000MHZ 30
ACCESSORIES		
A1	3828VA0190C	MANUAL,OWNERS DG LG GE/FR/N
A1	3828VA0190E	MANUAL,OWNERS UK/WTY LG EN
A1	3828VA0190Q	MANUAL,OWNERS FS LG FR 032C/E
A1	3828VA0190S	MANUAL,OWNERS ES LG SP/PO
A2	6710V00032C	REMOTE CONTROLLER W/O TXT
A2	6710V00032E	REMOTE CONTROLLER W/TXT
A3	132-210H	ANTENNA,ROD,W/ADAPTER L=650 PAL
MISCELLANEOUS		
	3300R-0165A	PLATE,GND
	879-019K	CABLE ASSY,FFC 7PX100MM(P=1.25)
⚠ F801	0FT4001B53C	FUSE,TIME LAG 4000MA 250V 5.2X20
JK05J	6613V00009C	JACK ASSY,PMJ015C H/P+A/V 2P
LD03	4931R-0017A	HOLDER ASSY,LED
⚠ TH801	163-051F	THERMISTOR,J503P84D140M290Q
TU100	6700VPF005A	TUNER,TU8PSD01DB PAL DIN BG/L 3
"	6700VPF005B	TUNER,TU8PSD01DA PAL
RC01	106-047J	PRE-AMP,SBX2020-82(01) 38.0KHZ NO
S01	6500RAB002A	SENSOR,GP1S566 SHARP D-33
S02	6500RAB002A	SENSOR,GP1S566 SHARP D-33
S03	4930V00090A	HOLDER END SENSOR ASSY(33 DECK)
S04	4930V00090A	HOLDER END SENSOR ASSY(33 DECK)
SG901	165-004A	SPARK GAPAG20PT 152F-L3N/S-23
SG902	165-004A	SPARK GAPAG20PT 152F-L3N/S-23
SK200	381-091A	SOCKET,S-091A 21PIN H
⚠ SK902	6620VBA001A	SOCKET (CIRC),CPT PCS-633A

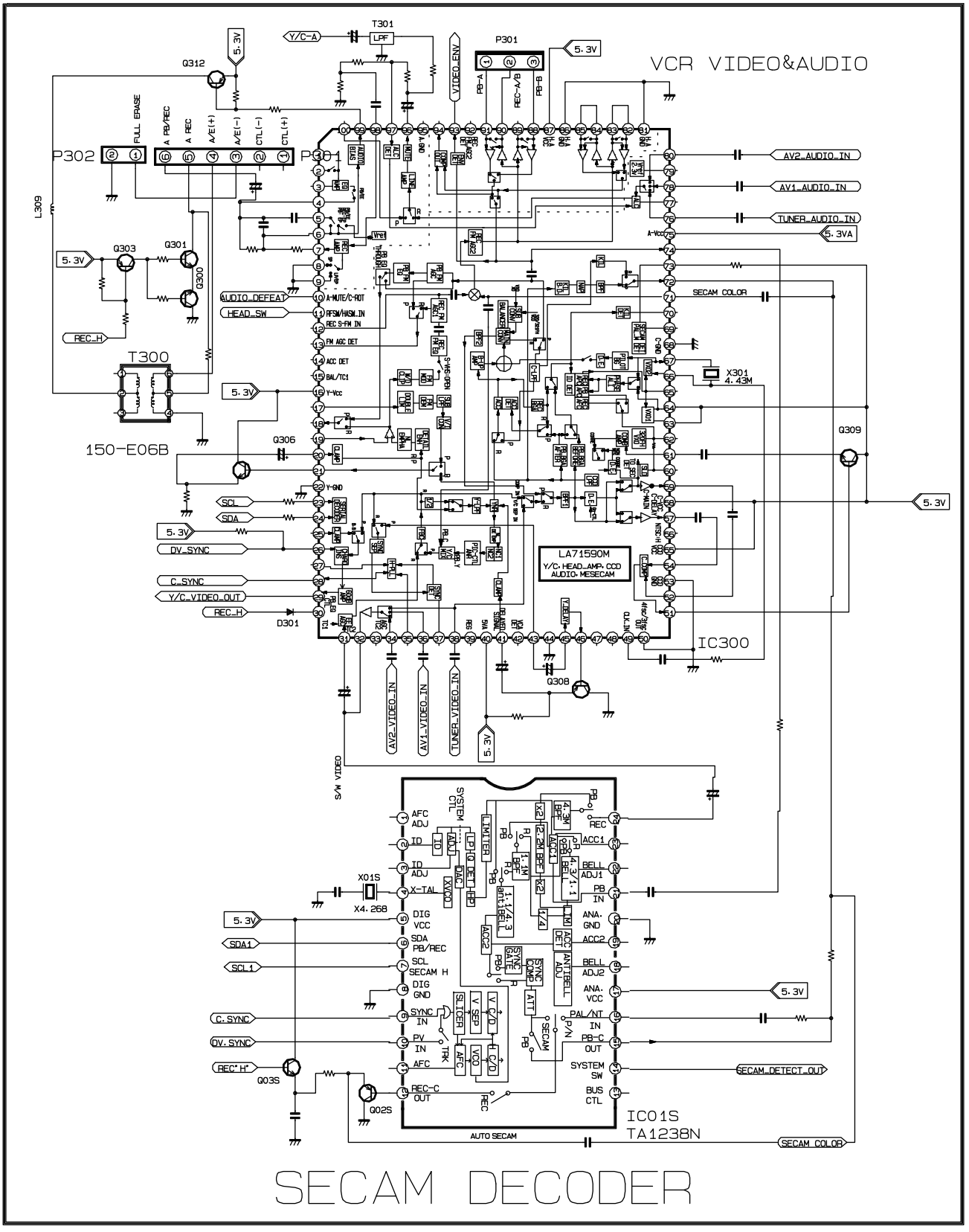
BLOCK DIAGRAM



VCD BLOCK DIAGRAM



VIDEO/AUDIO BLOCK DIAGRAM



MV-995B MAIN2 SCHEMATIC DIAGRAM

P/No. : 3854VA0060B(2/2)
Date : 2000.4.6

NOTICE
Since this is a basic schematic diagram, The value of components and some partical connection aresubject to change for improvement.

The components marked ⚠ conform to VDE or IEC guidelines and are essential for safe operation of the set, while those marked ⚠ are required for correct operation. Use specified parts only when replacing.

VALUE OF RESISTER, CAPACITOR AND INDUCTOR

1. Resistances are shown in ohm, K = 1,000 M = 1,000,000 .
2. Unless otherwise noted in schematic, all capacitor values less than 1 are expresses in mfd and the values more than 1 in pF
3. Unless otherwise noted in schematic, all coil values more than 1 are expressed in uH, and the values less than 1 in H.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltages 220 Volts, colour bar signal
2. Voltages reading may very ±20%.
3. The schematic shown is representative only.
4. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
5. Check FINE TUNING, AGC, BRIGHTNESS, CONTRAST and COLOUR controls for best picture, make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS controls is almost in maximum position.
6. Waveforms are takrn using a standard colour bar signal.

MV995B POWER/DEF/CPT/AV2

CIRCUIT DIAGRAM OF MV-995B

P/No. : 3854VA0060B(1/2)
Date : 2000.4.6

P500
TO CPT BOARD P2902

P501A
FROM MAIN2 P805

IC500
TDA8841/8842

VCD

IC101
CD4052B

IF

IC300

Y/C

IC01S TA1238N

SECAM DECODER

IC01T
SDA5457

TXT

IC03
KA75332

IC02
AT24C16

IC04
KA7532Z

SERVO

IC05
LB1645N

IC06
35041-075FP

OSD

AV S/W

IC200 LA7016

IC201
LA7016

IC202 W/SCART

SYS & CON

KEY_BOARD

P01 P04 PD04 P03 P04 P805A FROM MAIN2 P805

SK200 JK201 JK202

CIR NBR	OPTION	
D30	SYSTEM	0:L/L',BG X:BG-DK,I
D31	SECAM/MESECAM	0:DEL X:ADD
D32	SP-VLP	0:SP ONLY X:SP/LP
D33	TEXT	0:DEL X:ADD
D34	VPS/PDC	
D35	NC	

SYSTEM	S0	S1
B/G	1	1
I	0	0
D/K	0	1

	1	2	3	4	5	6	7	8	9	10	11	12	13
	2.8Vp-p 1KHZ	2Vp-p	220mVp-p	28Vp-p 15.75KHZ	1.7Vp-p	5Vp-p 15.75KHZ	5Vp-p 60HZ	0.2Vp-p	1.4Vp-p	4.4Vp-p	3.2Vp-p	4.0Vp-p	7Vp-p
WAVEFORMS V/C IC 402		PIN2(PB) 500mVpp	PIN3(PB) 500mVpp	PIN41(REC) 500mVpp	PIN61(REC) 500mVpp	PIN51(REC) 1.0Vpp	PIN8(PB) 400mVpp	PIN11(PB) 350mVpp	PIN14(REC) 360mVpp	PIN17(PB) 550mVpp	PIN18(PB) 480mVpp	PIN21(PB) 200mVpp	PIN26(PB) 4.2Vpp	PIN28 2Vpp	PIN30 5.0Vpp	PIN31 1.0Vpp	PIN34(REC) 1.2Vpp	PIN25(PB) 420mVpp	PIN35(PB)1500mVpp

PB.V
PB.A
REC.V
REC.A

<MAIN> COMPONENT LOCATION GUIDE

C01.....B2
C03.....C4
C04.....B4
C05.....B4
C06.....B4
C07.....B4
C08.....B4
C09.....B4
C10.....A4
C11.....A4
C12.....A4
C13.....A4
C14.....A5
C16.....A1
C17.....A5
C19.....A3
C20.....B3
C25.....B3
C26.....B3
C27.....B3
C28.....B3
C29.....B2
C30.....D2
C31.....D2
C32.....B2
C33.....B2
C34.....C5
C35.....E5
C36.....D2
C37.....D1
C38.....C1
C39.....A5
C40.....C5
C41.....B5
C42.....A2
C43.....C1
C44.....B4
C45.....E2
C46.....A2
C47.....C5
C48.....D5
C49.....A2
C50.....C1
C51.....B3
C52.....B2
C53.....B1
C54.....B1
C55.....C5
C56.....A5
C58.....B5
C59.....D5
C61.....D5
C63.....B2
C64.....B1
C65.....B2
C66.....B2
C67.....B2
C68.....D1
C69.....D1
C70.....C2
C71.....C2
C72.....B1
C73.....B1
C74.....B1
C75.....C1
C76.....B3
C77.....A3
C78.....A2
C80.....B1
C81.....C1
C82.....B4
C84.....B5
C85.....D5
C86.....B4
C87.....B4
C88.....B4
C100.....G1
C101.....G1
C102.....G1
C103.....G2
C104.....G2
C105.....G1
C106.....G1
C107.....F1
C108.....F1
C109.....F1
C110.....F1
C111.....F2
C112.....F1
C113.....F1
C114.....F1
C115.....E1
C116.....E1
C118.....E2
C119.....E1
C120.....F2
C121.....F2
C122.....E2
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C126.....E2
C127.....F2
C128.....E1
C129.....E1
C130.....F3
C131.....F2
C132.....G1
C133.....G1
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C201.....F3
C202.....F4
C203.....F3
C204.....G3
C205.....G4
C207.....F4
C209.....F4
C210.....F4
C211.....F3
C212.....F3
C213.....F3
C214.....F3
C220.....F3
C222.....F4
C223.....F4
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C225.....F4
C226.....F4
C227.....G3
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C242.....F4
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C308.....E3
C309.....E3
C310.....D3
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C314.....D3
C315.....D3
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C317.....D3
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C18T.....F5
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IC03T.....F4
IC04T.....F5
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J4T.....F5
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R03T.....F4
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R07T.....G5
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R08T.....F5
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R09T.....F5
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RA15.....B1
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RA25.....C1
RA28.....D2
RA29.....B4
RA30.....A4
RA32.....B4
RA33.....B3
RA34.....A2
RA35.....B2
RA36.....D5
RA37.....D5
RC01.....A5
S01.....B4
S02.....B2
S03.....C5
S04.....C1
SK200....G4
SM01A....B3
SM01B....B4
SM06A....B2
SM06B....C2
SM301A..D2
SM301B..D3
SMA.....G1
SMB.....A5
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SW03.....A1
SW04.....A3
SW05.....A4
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SW07.....A4
SW08.....A4
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SW12.....A3
SW13.....A2
SW14.....A2
SW804....A1
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T102.....F1
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TP82.....E2
TP83.....E5
TP84.....E4
TP85.....E5
TP86.....E5
TP87.....E5
TP88.....E2
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TP93.....E2
TP94.....E2
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TP96.....E3
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TP98.....E4
TP99.....E3
TP100.....E4
TP101.....E2
TP102.....E3
TP103.....E1
TP104.....E2
TP105.....F4
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TP112.....F2
TP115.....F1
TP117.....F2
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TP122.....F3
TP123.....F2
TP124.....F2
TP128.....F1
TP129.....F5
TP130.....F5
TP132.....F5
TP134.....F2
TP135.....F5
TP137.....F5
TP140.....F5
TP142.....F2
TP143.....F5
TP145.....F2
TP146...F5T
P147.....F5
TP149.....F3
TP150.....F1
TP152.....F3
TP153.....F5
TP155.....F2
TP156.....F3
TP157.....F4
TP158.....F4
TP159.....F5
TP161.....F1
TP162.....F2
TP163.....F5
TP164.....F1
TP166.....F5
TP170.....F4
TP172.....G2
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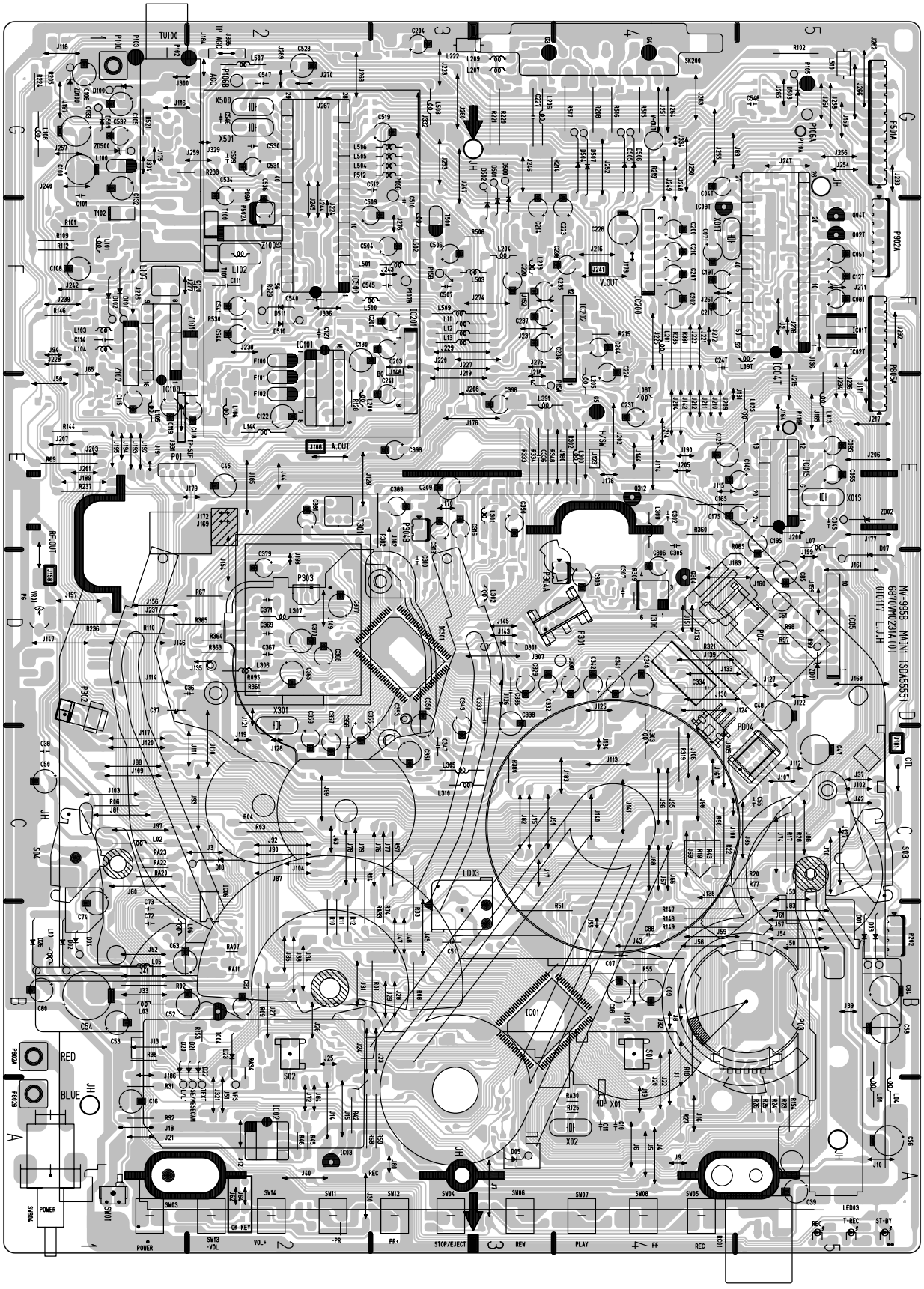
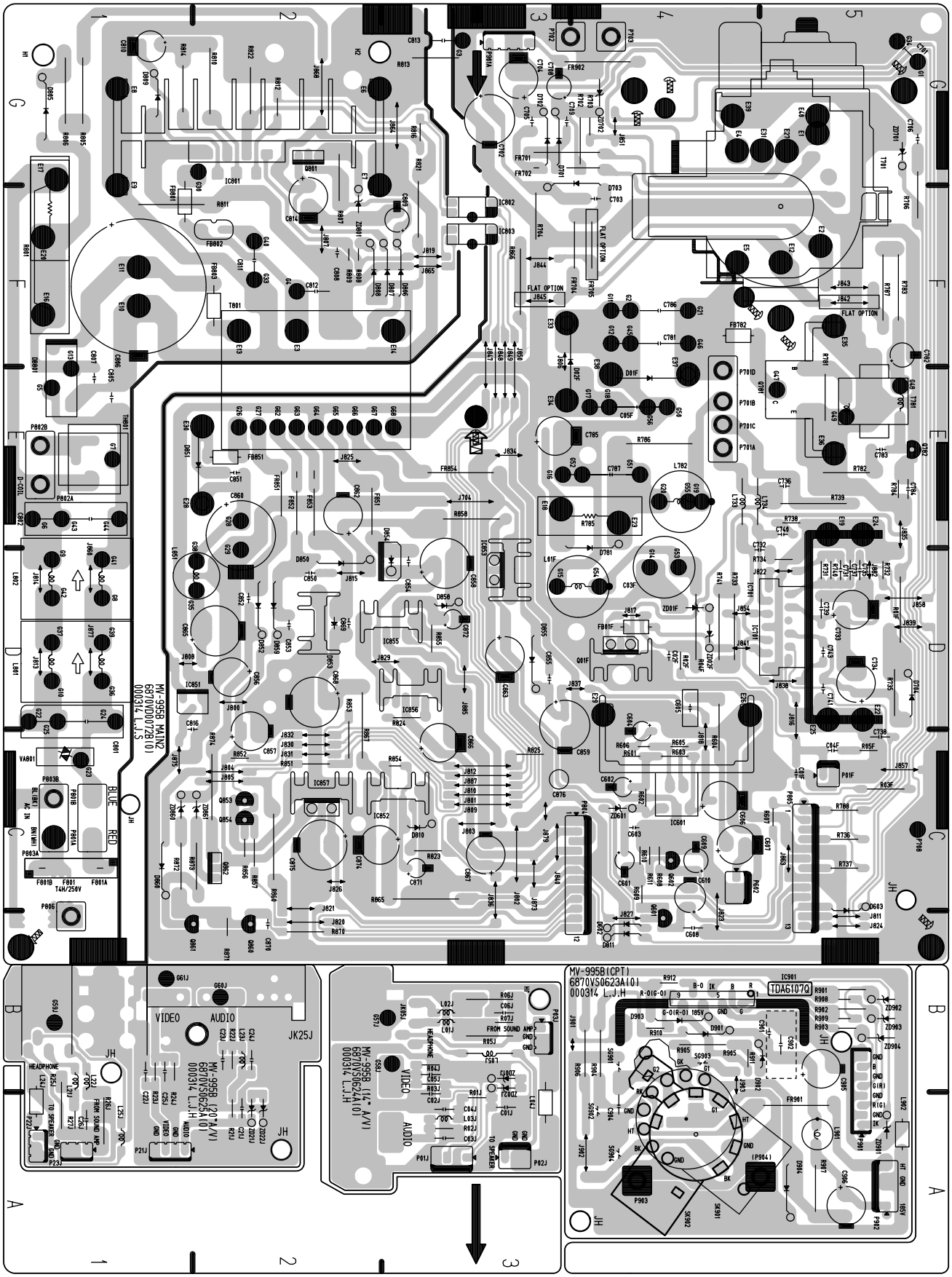
TP174.....G2
TP175.....G5
TP176.....G2
TP177.....G2
TP178.....G2
TP179.....G2
TP180.....G2
TP181.....G5
TP182.....G3
TP183.....G3
TU100.....G1
VR01.....D1
X01.....A4
X02.....A4
X301.....D2
X500.....G2
X501.....G2
X01S.....E5
X01T.....F4
Z100.....F2
Z101.....F2
Z102.....F1
ZD01.....D5
ZD02.....E5
ZD100.....G1
ZD500....G1

PRINTED CIRCUIT BOARD

MAIN



POWER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6870MD072B(0)
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MV-995B(CPT)
6870VS0623A(0)
000314 L.J.H
TDA6107Q
MV-995B I2C*A/V1
6870VS0624A(0)
000314 L.J.H
MV-995B I2C*A/V1
6870VS0625A(0)
000314 L.J.H
VIDEO
AUDIO
JK25J
HEADPHONE
TO SPEAKER
FROM SOUND AMP
FLAT OPTION
BLUE
RED
AC IN
F801B T4H/250V
F801 T4H/250V
F801A

<SMPS> COMPONENT LOCATION GUIDE

C601.....C4
C602.....C4
C603.....C4
C604.....C4
C605.....D4
C606.....C4
C607.....C4
C608.....B4
C609.....C4
C610.....C4
C701.....G5
C702.....G3
C703.....F4
C704.....G3
C705.....G3
C706.....G5
C708.....G3
C709.....G4
C731.....D5
C732.....D4
C733.....D5
C734.....D5
C735.....D5
C736.....E5
C737.....D5
C738.....C5
C739.....D5
C740.....E5
C741.....D5
C743.....D5
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C782.....F5
C783.....E5
C784.....E5
C785.....E4
C786.....F4
C787.....E4
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C805.....E1
C806.....F1
C807.....E1
C808.....F2
C809.....F3
C810.....G1
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C814.....F2
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C851.....E2
C852.....D2
C853.....D2
C854.....D3
C855.....D3
C856.....D2
C857.....C2
C858.....D3
C859.....C4
C860.....D2
C862.....E2
C863.....D3
C865.....D2
C866.....C3
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C868.....D2
C869.....D2
C870.....B2
C871.....C3
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C874.....C2
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C876.....C4
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C902.....B5
C904.....A4
C905.....B5
C906.....A5
C01F.....C5
C01J.....A3
C02F.....D4
C02J.....A3
C03F.....D4
C03J.....A3
C04F.....C5
C04J.....A3
C05F.....E4
C05J.....B3
C06J.....B3
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C22J.....B1
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D854.....D3
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J814.....D1
J815.....D2
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J821.....C2
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JP4.....C1
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L04J.....B3
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P03J.....B3
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R809.....F2
R810.....G2
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R814.....G2
R816.....G3
R821.....F3
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SK902....A4
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ZD01F.....D4
ZD01J.....B3
ZD02F.....D4
ZD02J.....B3
ZD21J.....A2
ZD22J.....A2

SECTION 4 MECHANISM

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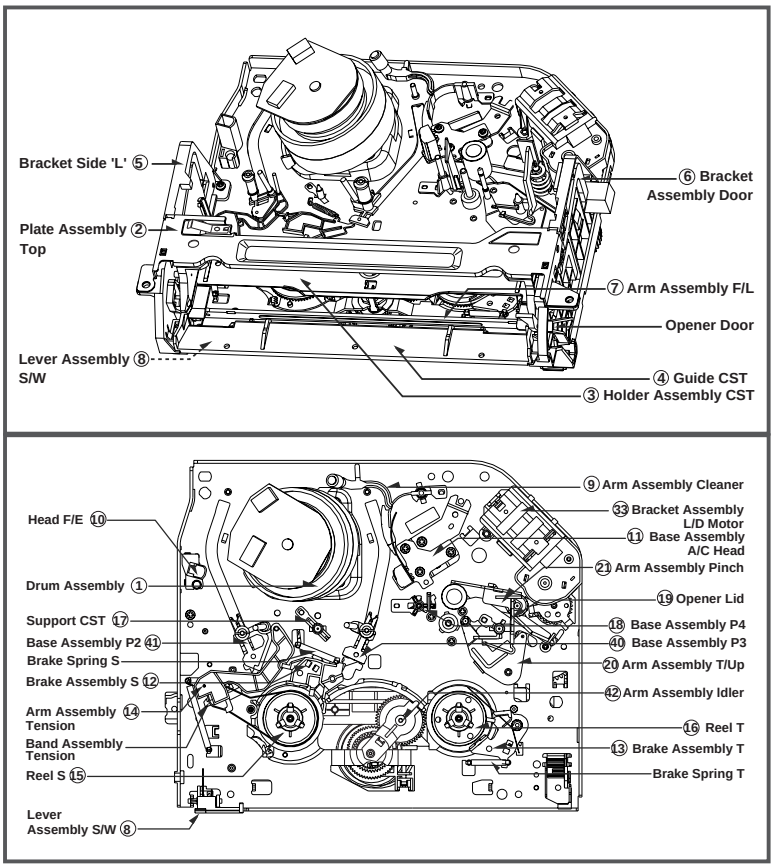
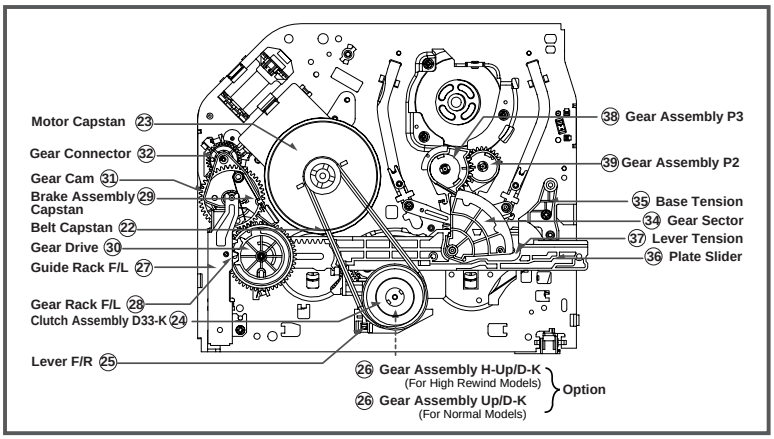
DECK MECHANISM PARTS LOCATIONS(FOR NORMAL MODELS)

• Top View



Starting No. \ Procedure		Part	Fixing Type	Figure
	1	Drum Assembly	3 Screws , Cap FPC	A-1
	2	Plate Assembly Top	Two Hooks	A-2
2	3	Holder Assembly CST	Chassis Hole	A-2
	4	Guide CST	2 Hooks	A-2
2,3,4	5	Bracket Side (L)	1 Screw	A-2
2,3,4	6	Bracket Assembly Door	1 Screw	A-2
2,3,4,5,6	7	Arm Assembly F/L	Chassis Hole	A-2
2,3,4,5	8	Lever Assembly S/W	Chassis Hole	A-2
	9	Arm Assembly Cleaner	Chassis Embossing	A-3
	10	Head F/E	2 Hooks	A-3
	11	Base Assembly A/C Head	1 Screw	A-3
	12	Brake Assembly S	Chassis Hole	A-4
2,3	13	Brake Assembly T	Chassis Hole	A-4
2,3,12,	14	Arm Assembly Tension	Chassis Hole	A-4
2,3,12,14	15	Reel S	Chassis Shaft	A-4
2,3,13	16	Reel T	Chassis Shaft	A-4
	17	Support CST	Chassis Embossing	A-5
	18	Base Assembly P4	Chassis Embossing	A-5
	19	Opener Lid	Chassis Embossing	A-5
19	20	Arm Assembly T/Up	Chassis Embossing	A-5
19	21	Arm Assembly Pinch	Chassis Shaft	A-5

• Bottom View



Starting No. \ Procedure		Part	Fixing Type	Figure
	22	Belt Capstan		A-6
22	23	Motor Capstan	3 Screws	A-6
	24	Clutch Assembly D33-K	1 Washer	A-6
22,24	25	Lever F/R	1 Hook	A-6
22,24	26	Gear H-Up/D-K	2 Washers	A-6
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27	28	Gear Rack F/L		A-7
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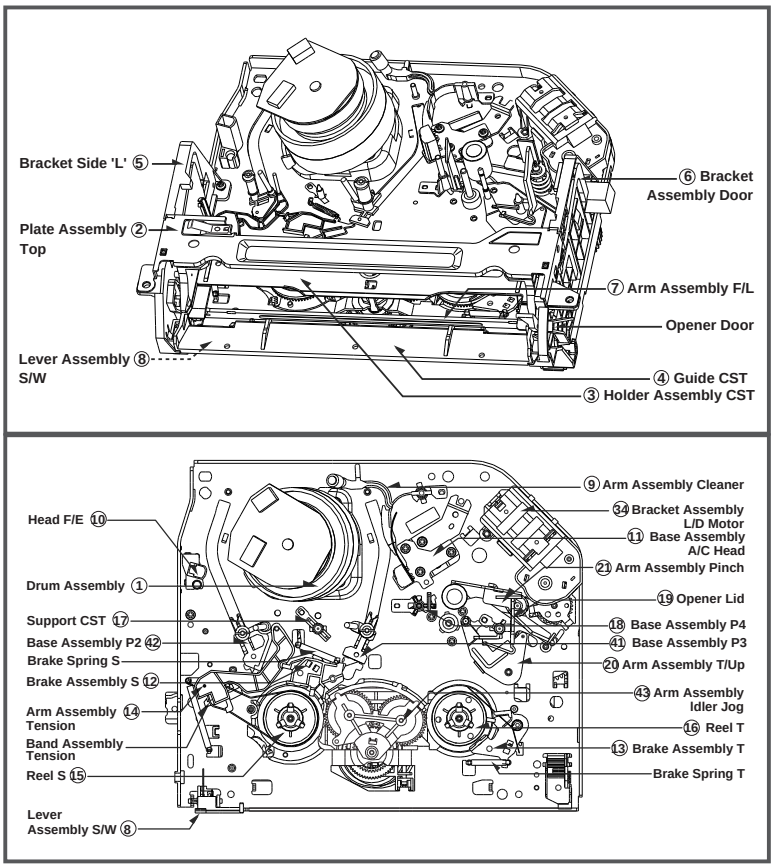
27, 28, 29, 30	32	Gear Connector	Chassis Shaft	A-8
	33	Bracket Assembly L/D Motor	3 Hooks	A-8
	34	Gear Sector	3 Washers	A-9
	35	BaseTension	1 Screw	A-9
22, 24, 25, 27, 28, 30, 34 35	36	Plate Slider	Chassis Shaft	A-9
22, 24, 25, 27, 28, 30, 34 35	37	Lever Tension	Chassis Hole	A-9
34	38	Gear Assembly P3	2 Hooks	A-10
34, 38	39	Gear Assembly P2	2 Hooks	A-10
34, 38, 39	40	Base Assembly P3	Chassis Hole	A-10
34, 38, 39, 40	41	Base Assembly P2	Chassis Hole	A-10
1, 2	42	Arm Assembly Idler	1 Hook	A-10

NOTE : When reassembly perform the procedure in the reverse order.

1) When reassembling, confirm Mechanism and Mode Switch Alignment Position (Pefer to Page 4-14)
2) When disassembling, the Parts for Starting No. Should be removed first.

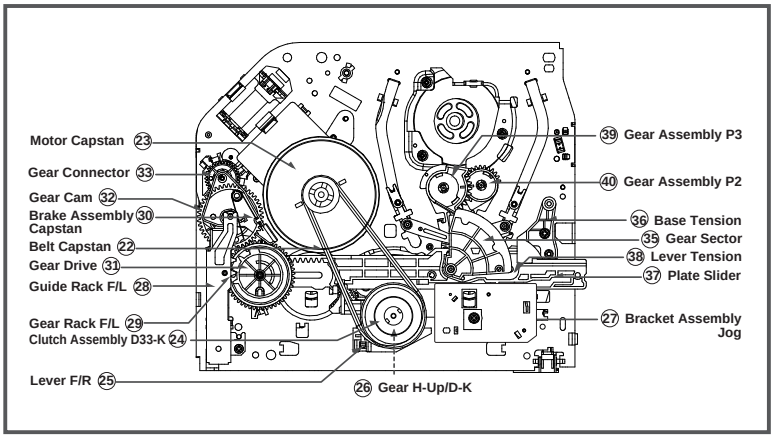
DECK MECHANISM PARTS LOCATIONS(FOR JOG SHUTTLE MODELS)

• Top View



Starting No. \ Procedure		Part	Fixing Type	Figure
	1	Drum Assembly	3 Screws , Cap FPC	A-1
	2	Plate Assembly Top	Two Hooks	A-2
2	3	Holder Assembly CST	Chassis Hole	A-2
	4	Guide CST	2 Hooks	A-2
2,3,4	5	Bracket Side (L)	1 Screw	A-2
2,3,4	6	Bracket Assembly Door	1 Screw	A-2
2,3,4,5,6	7	Arm Assembly F/L	Chassis Hole	A-2
2,3,4,5	8	Lever Assembly S/W	Chassis Hole	A-2
	9	Arm Assembly Cleaner	Chassis Embossing	A-3
	10	Head F/E	2 Hooks	A-3
	11	Base Assembly A/C Head	1 Screw	A-3
	12	Brake Assembly S	Chassis Hole	A-4
2,3	13	Brake Assembly T	Chassis Hole	A-4
2,3,12,	14	Arm Assembly Tension	Chassis Hole	A-4
2,3,12,14	15	Reel S	Chassis Shaft	A-4
2,3,13	16	Reel T	Chassis Shaft	A-4
	17	Support CST	Chassis Embossing	A-5
	18	Base Assembly P4	Chassis Embossing	A-5
	19	Opener Lid	Chassis Embossing	A-5
19	20	Arm Assembly T/Up	Chassis Embossing	A-5
19	21	Arm Assembly Pinch	Chassis Shaft	A-5

• Bottom View



Starting No. \ Procedure		Part	Fixing Type	Figure
	22	Belt Capstan		A-6
22	23	Motor Capstan	3 Screws	A-6
	24	Clutch Assembly D33-K	1 Washer	A-6
22,24	25	Lever F/R	1 Hook	A-6
22,24	26	Gear H-Up/D-K	2 Washers	A-6
	27	Bracket Assembly Jog	1 Screw	A-7
	28	Guide Rack F/L	1Screw	A-7
28	29	Gear Rack F/L		A-7
28, 29	30	Brake Assembly Capstan	Chassis Shaft	A-7
28, 29	31	Gear Drive	1 Washer	A-8
28, 29, 30	32	Gear Cam	Chassis Shaft	A-8
28, 29, 30, 31	33	Gear Connector	Chassis Shaft	A-8
	34	Bracket Assembly L/D Motor	3 Hooks	A-8
	35	Gear Sector	3 Washers	A-9
	36	BaseTension	1 Screw	A-9
22, 24, 25, 27	37	Plate Slider	Chassis Shaft	A-9
28, 29, 31, 35				
36				
22, 24, 25, 27				
28, 29, 31, 35	38	Lever Tension	Chassis Hole	A-9
36				
35	39	Gear Assembly P3	2 Hooks	A-10
35, 39	40	Gear Assembly P2	2 Hooks	A-10
35, 39, 40	41	Base Assembly P3	Chassis Hole	A-10
35, 39, 40, 41	42	Base Assembly P2	Chassis Hole	A-10
1, 2	43	Arm Assembly Idler Jog	1 Hook	A-10

NOTE : When reassembly perform the procedure in the reverse order.

1) When reassembling, confirm Mechanism and Mode Switch Alignment Position (Pefer to Page 4-14)
2) When disassembling, the Parts for Starting No. Should be removed first.

DECK MECHANISM DISASSEMBLY

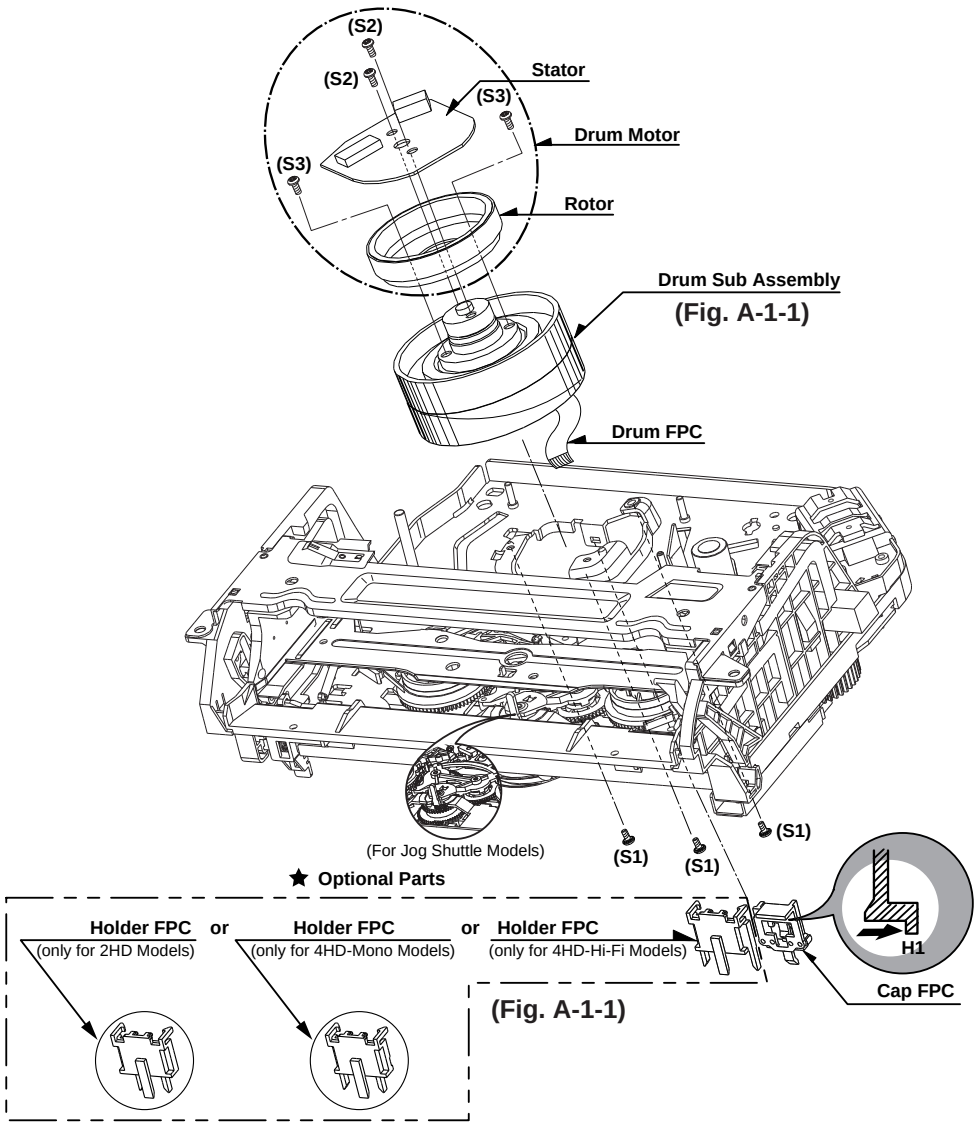


Fig. A-1

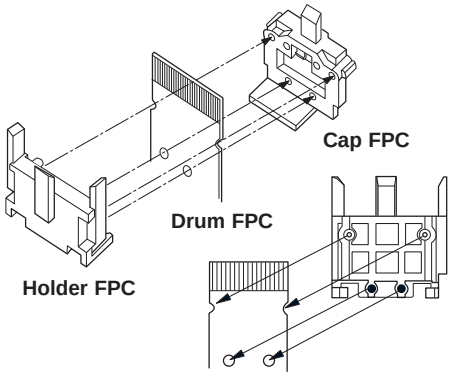
1. Drum Assembly (Fig. A-1-1)

1) Unhook the (H1) on the back side of the Chassis and separate the Cap FPC.
2) Remove three Screws (S1) and lift up the Drum Assembly.
3) Remove two Screws (S2) and Separate the Stator of Drum Motor.
4) Remove two Screws (S3) and Separate the Rotor of Drum Motor from the Drum Sub Assembly.

NOTE

(1) When reassembling Cap FPC, two Holes of Drum FPC are inserted to the two Bosses of Holder FPC correctly. (Refer to Fig. B-1)

(Fig. B-1)



DECK MECHANISM DISASSEMBLY

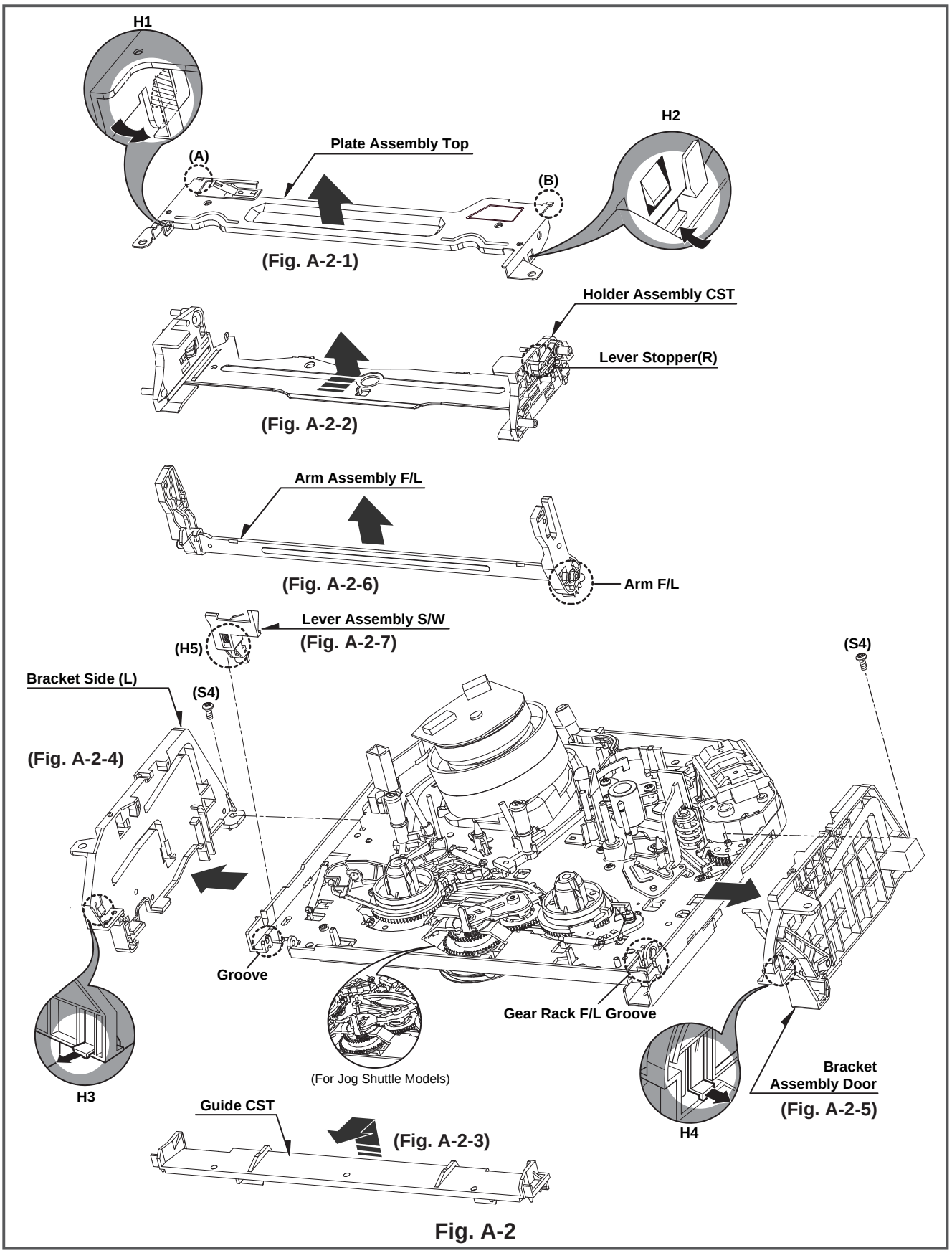


Fig. A-2

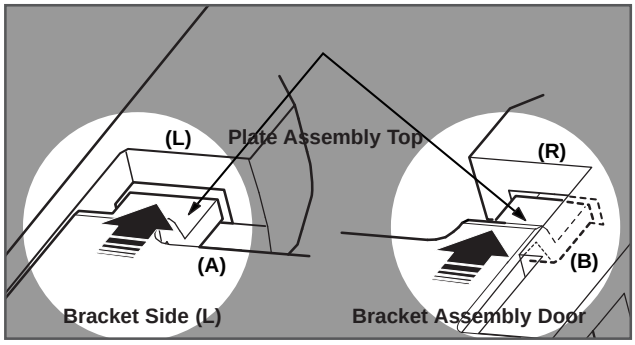
DECK MECHANISM DISASSEMBLY

2. Plate Assembly Top (Fig. A-2-1)

1) Unhook the (H1) and separate the Left Side.
2) Unhook the (H2) and lift up the Plate Assembly Top.

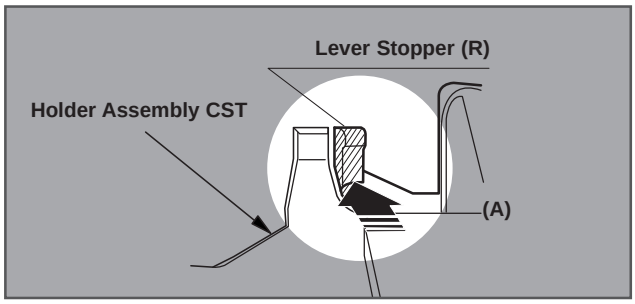
NOTE

(1) When reassembling, confirm (A),(B) Part of the Plate Assembly Top is inserted to the (L),(R) Grooves of the Bracket Side(L) and Bracket Assembly Door.

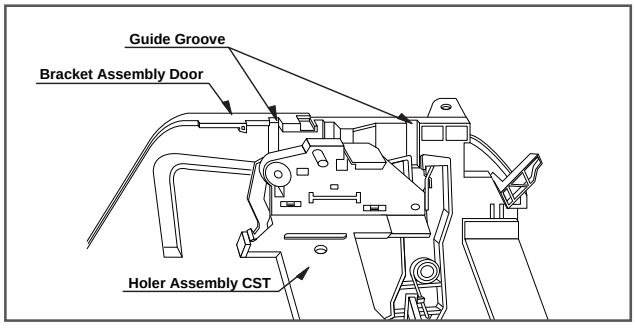


3. Holder Assembly CST (Fig.A-2-2)

1) Push the Lever Stopper (R) in the direction of the arrows (A) and move the Holder Assembly CST.

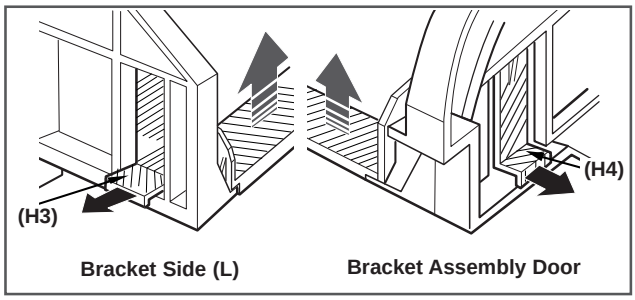


2) Push the Bracket Assembly Door to the right and lift up the Holder Assembly CST along the Guide Groove of the Bracket Assembly Door.



4. Guide CST (Fig.A-2-3)

1) Unhook(H3) in the direction of the arrow and separate the left side.
2) Unhook (H4) as above No.1) and disassemble the Guide CST in the direction of the arrow.



5. Bracket Side(L) (Fig. A-2-4)/ Bracket Assembly Door (Fig.A-2-5)

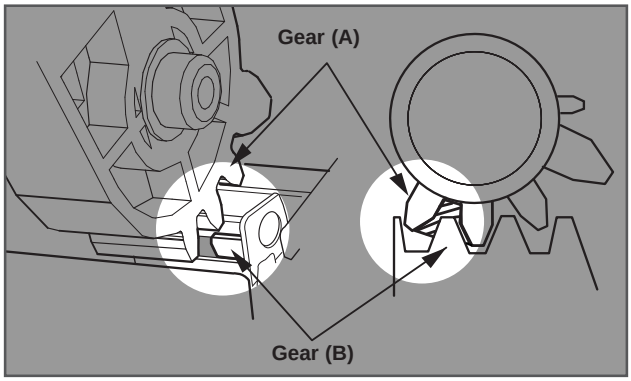
1) Remove the Screw (S4) and disassemble the Bracket Side(L) in the front.
2) Remove the Screw (S4) and disassemble the Bracket Assembly Door in the front.

6. Arm Assembly F/L (Fig. A-2-6)

1) Push the Arm Assembly F/L to the left and lift up it.

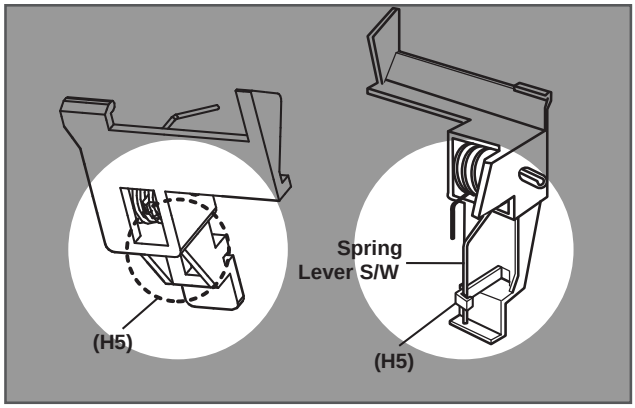
NOTE

(1) When reassembling, confirm that the Gear(A) of the Arm F/L and the Gear(B) of the Gear Rack F/L are assembled as below.



7. Lever Assembly S/W (Fig. A-2-7)

1) Hook the Spring Lever S/W on (H5).
2) Lift up the left side of the Lever S/W from the Groove(A) of the Chassis.



DECK MECHANISM DISASSEMBLY

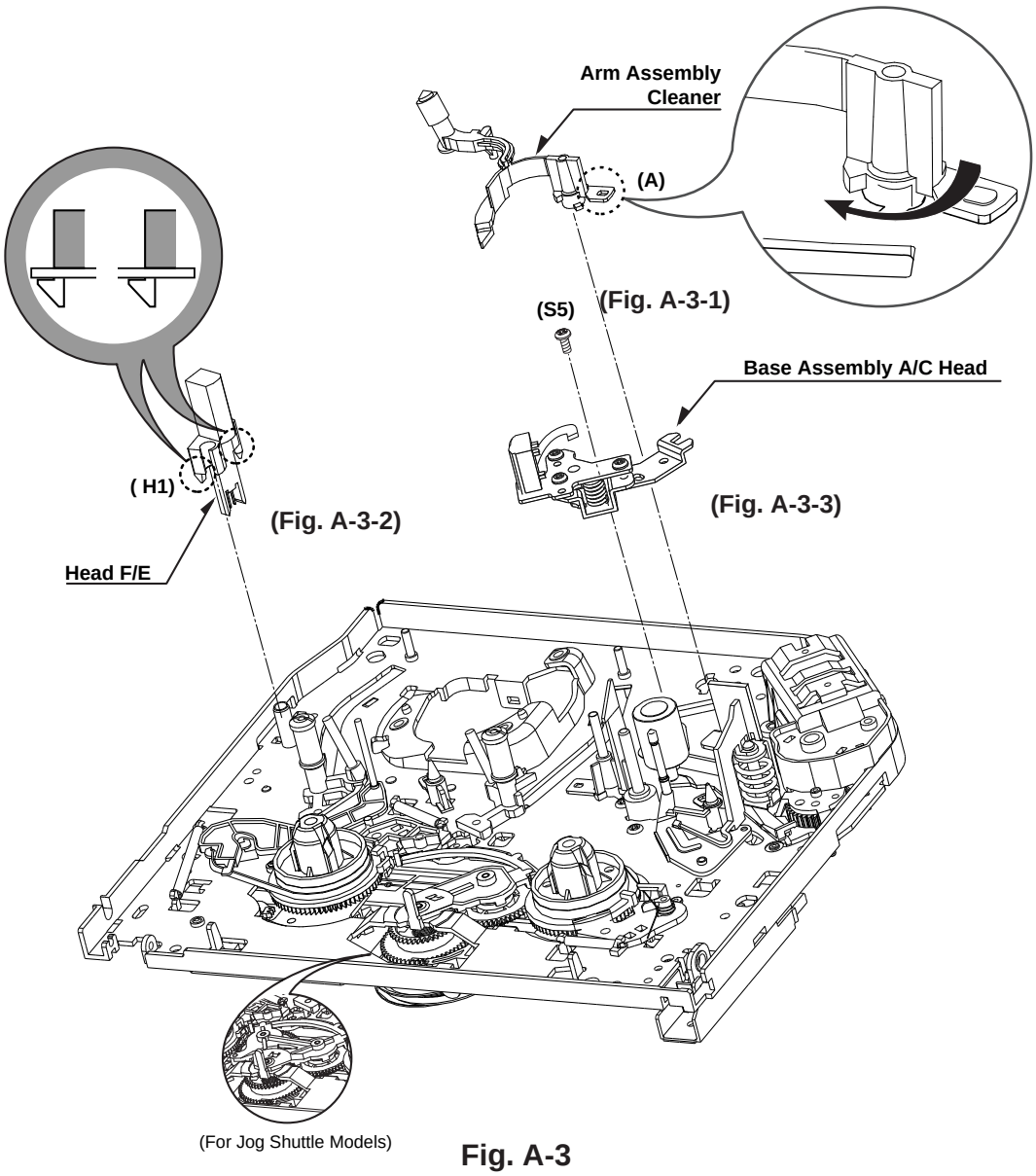
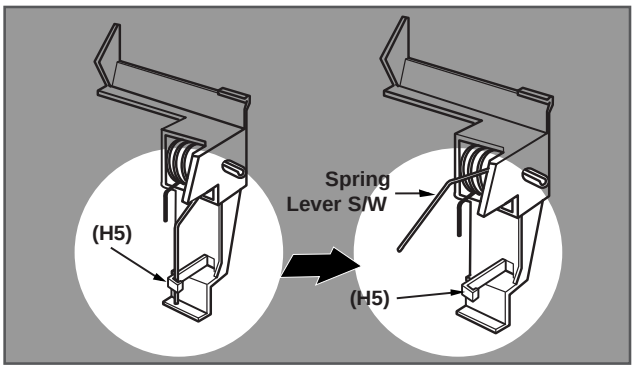


Fig. A-3

NOTE

(1) Place the Spring Lever S/W of the above (No.1) as original position.



8. Arm Assembly Cleaner(Fig. A-3-1)

1) Break away the (A) part shown above Fig. A-3-1 from the Embossing of the Chassis in the clockwise direction and lift up the Arm Assembly Cleaner.

9. Head F/E (Fig. A-3-2)

1) Unhook the two Hooks (H1) on the back side of the Chassis and lift up the Head F/E.

10. Base Assembly A/C Head (Fig. A-3-3)

1) Remove the Screw (S5) and lift up the Base Assembly A/C Head.

DECK MECHANISM DISASSEMBLY

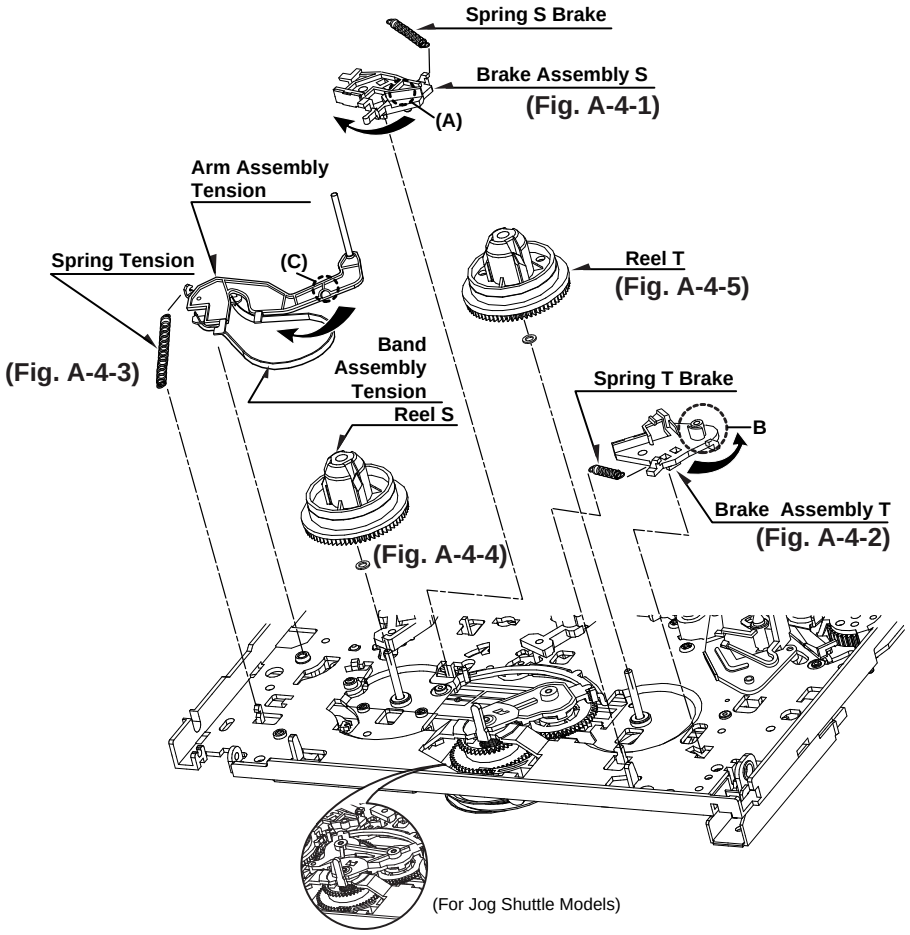


Fig. A-4

11. Brake Assembly S (Fig. A-4-1)

1) Remove the Spring S Brake.
2) Hold the (A) part shown above Fig. A-4-1 and turn to the clockwise direction, and then lift up the Brake Assembly S.

NOTE

(1) When reassembling, be careful not to change the Spring with below No.12.(Refer to Fig. B-2).

12. Brake Assembly T (Fig. A-4-2)

1) Remove the Spring T Brake.
2) Hold the (B) part shown above Fig. A-4-2 and turn to the counterclockwise direction, and then lift up the Brake Assembly T.

NOTE

(1) When reassembling, be careful not to change the Spring with above No.11.(Refer to Fig. B-2).

(Difference for Springs) **(Fig. B-2)**

	Spring T Brake Color (Black)
	Spring S Brake
	Spring Tension

13. Arm Assembly Tension (Fig. A-4-3)

1) Remove the Spring Tension.
2) Hold the (C) part shown above Fig. A-4-3 and turn to the clockwise direction, and then lift up the Arm Assembly Tension.

NOTE

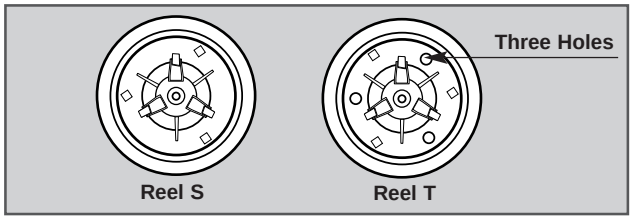
(1) When reassembling, be careful not to change the Spring with above No.11,12.(Refer to Fig. B-2).

14. Reel S (Fig. A-4-4) & Reel T (Fig. A-4-5)

1) Lift up the Reel S and Reel T.

NOTE

(1) When reassembling, be careful not to change the Reel S and Reel T each other.



(2) Confirm two Slide Washers under the Reel S and Reel T.

DECK MECHANISM DISASSEMBLY

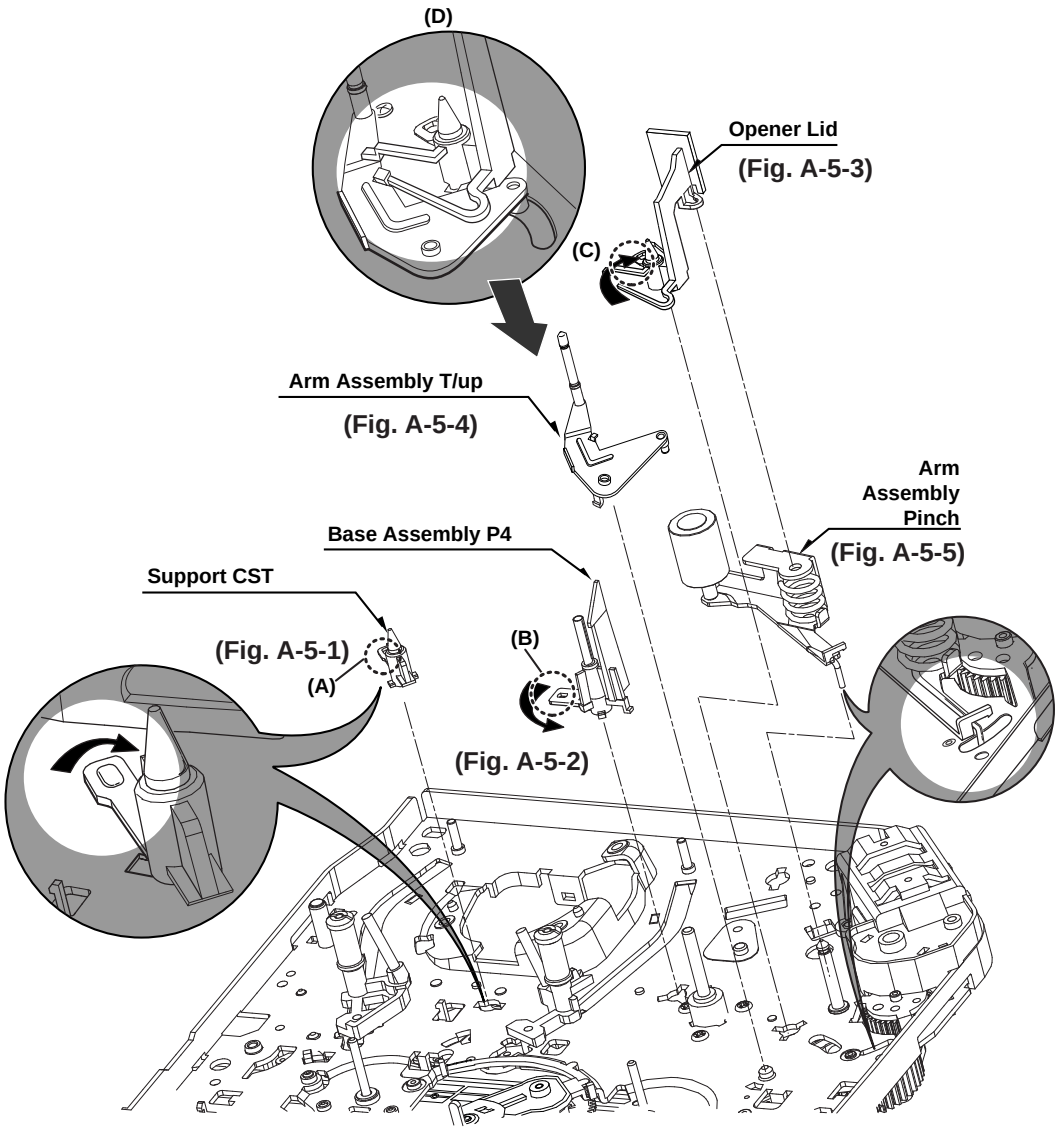


Fig. A-5

15. Support CST (Fig. A-5-1)

1) Break away the (A) part shown above Fig. A-5-1 from the Embossing of the Chassis in the clockwise direction, and lift up the Support CST.

16. Base Assembly P4 (Fig. A-5-2)

1) Break away the (B) part shown above Fig. A-5-2 from the Embossing of the Chassis in the counterclockwise direction and lift up the Base Assembly P4.

17. Opener Lid (Fig. A-5-3)

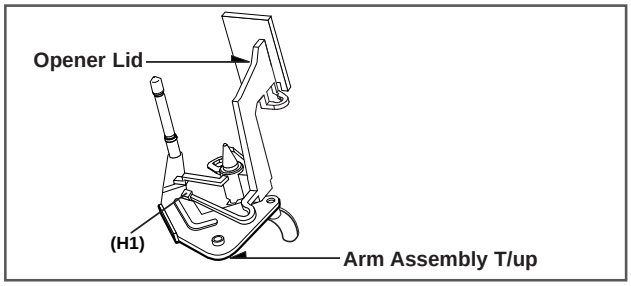
1) Break away the (C) Part of the Opener Lid from the Embossing of the Chassis in the Clockwise direction and lift up the Opener Lid.

18. Arm Assembly T/up (Fig. A-5-4)

1) Just lift up the Arm Assembly T/UP.

NOTE

(1) When reassembling, confirm the opener lid is placed on the Hook(H1) of the Arm Assembly T/UP as below figure.



19. Arm Assembly Pinch (Fig. A-5-5)

1) Lift up the Arm Assembly Pinch.

DECK MECHANISM DISASSEMBLY

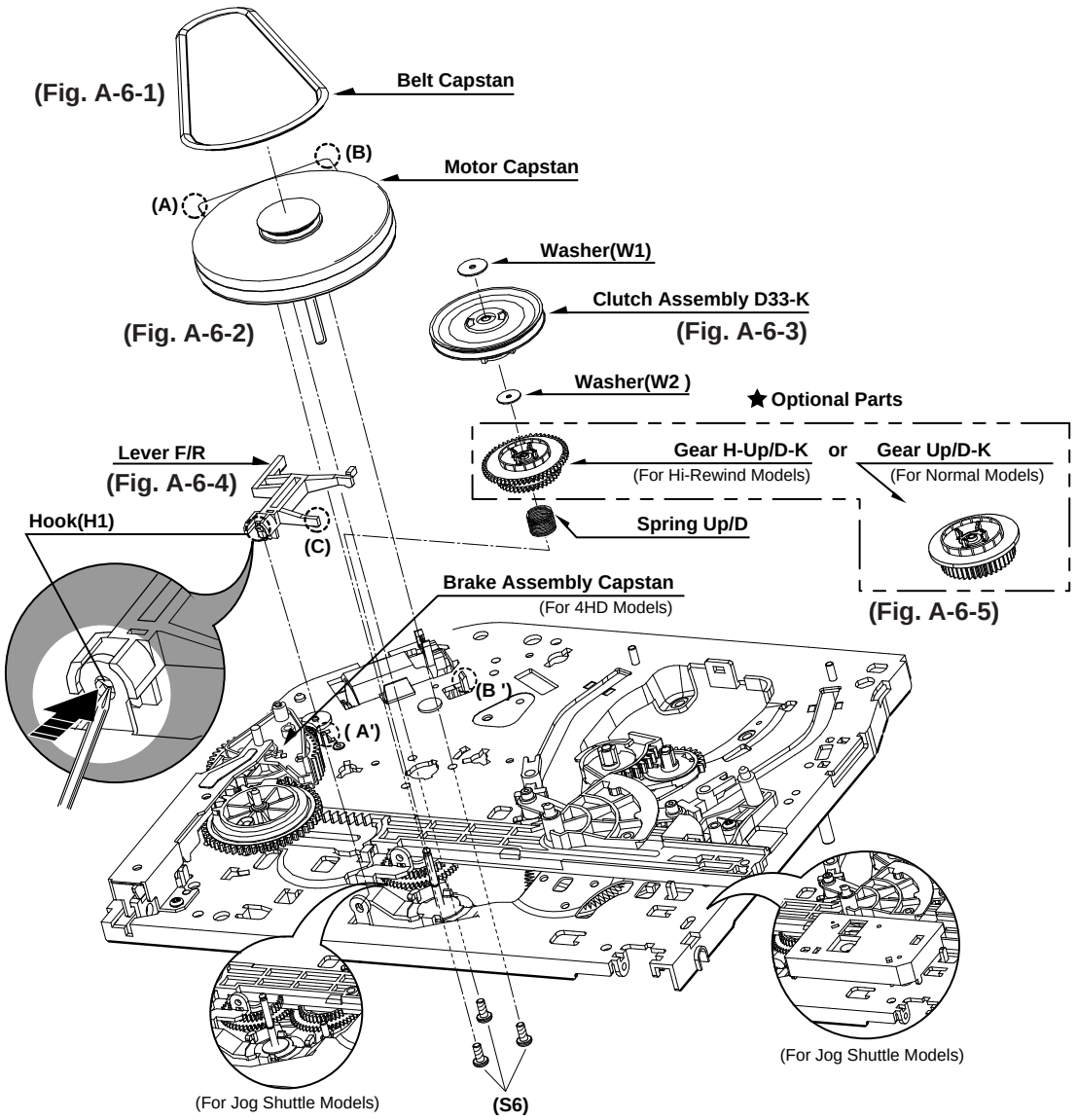


Fig. A-6

20. Belt Capstan (Fig. A-6-1)/ Motor Capstan (Fig. A-6-2)

1) Remove the Belt Capstan.
2) Remove three Screws(S6) on the back side of the Chassis and lift up the Motor Capstan.

NOTE

(1) When reassembling, Confirm the (A), (B) parts of Motor Capstan is located to the (A'), (B') of the Chassis.

21. Clutch Assembly D33-K (Fig. A-6-3)

1) Remove the Washer(W1) and lift up the Clutch Assembly D33-K.

22. Lever F/R (Fig. A-6-4)

1) Unhook the (H1) shown above Fig. A-6-4 and lift up the Lever F/R.

NOTE

(1) When reassembling, move the (C) part of the Lever F/R up and down, then confirm if it is returned to original position.

23. Gear H-Up/D-K or Gear Up/D-K (Fig. A-6-5)

1) Remove the Washer(W2) and lift up the Gear H-up/D-K.
2) Remove the Spring Up/D.

NOTE

(1) Gear H-Up/D-K is for Hi-Rewind Models.
(2) Gear Up/D-K is for Normal Models except Hi-Rewind Models.

DECK MECHANISM DISASSEMBLY

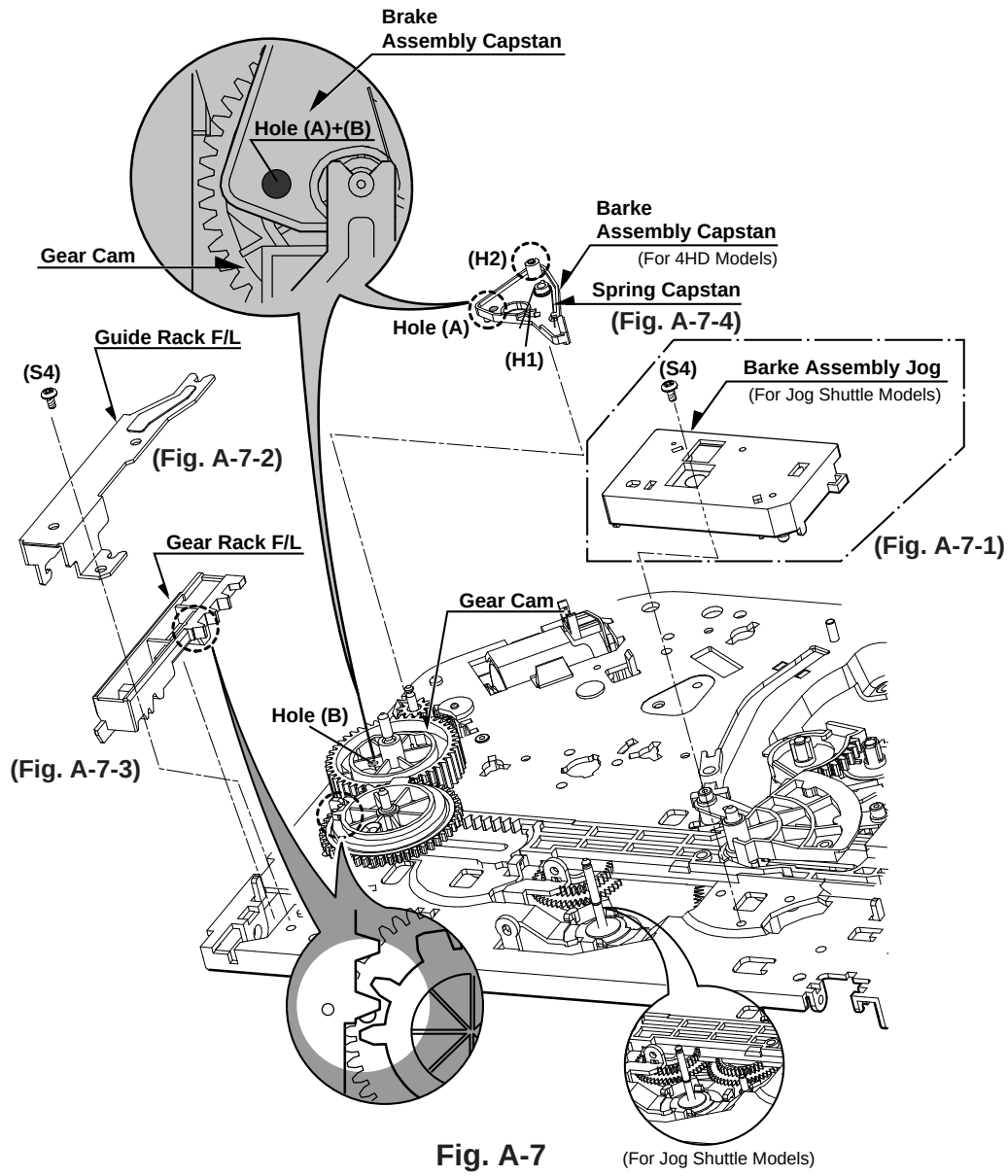


Fig. A-7

24. Bracket Assembly Jog (Fig. A-7-1) (Jog shuttle model option)

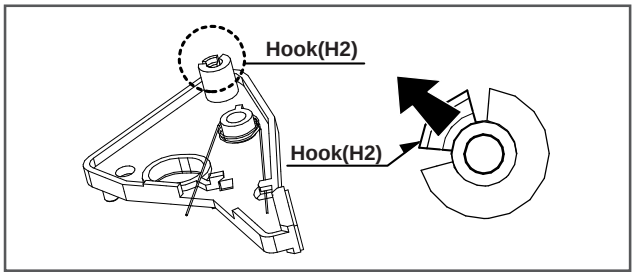
1) Remove the Screw(S4) and lift up the Bracket Assembly Jog.

25. Guide Rack F/L (Fig. A-7-2)/ Gear Rack F/L (Fig. A-7-3)

1) Remove the Screw(S4) and lift up the Guide Rack F/L.
2) Lift up the Gear Rack F/L.

26. Brake Assembly Capstan (Fig. A-7-4) (4HD model option)

1) Hook the Spring Capstan on the Hook(H1).
2) Unhook the Hook(H2) and lift up the Brake Assembly Capstan.(Refer to Fig. to the right)



NOTE

(1) When reassembling, confirm that the Hole(A) of the Brake Assembly Capstan is aligned to the Hole(B) of the Gear Cam.
(Refer to above Fig. A-7-4).

DECK MECHANISM DISASSEMBLY

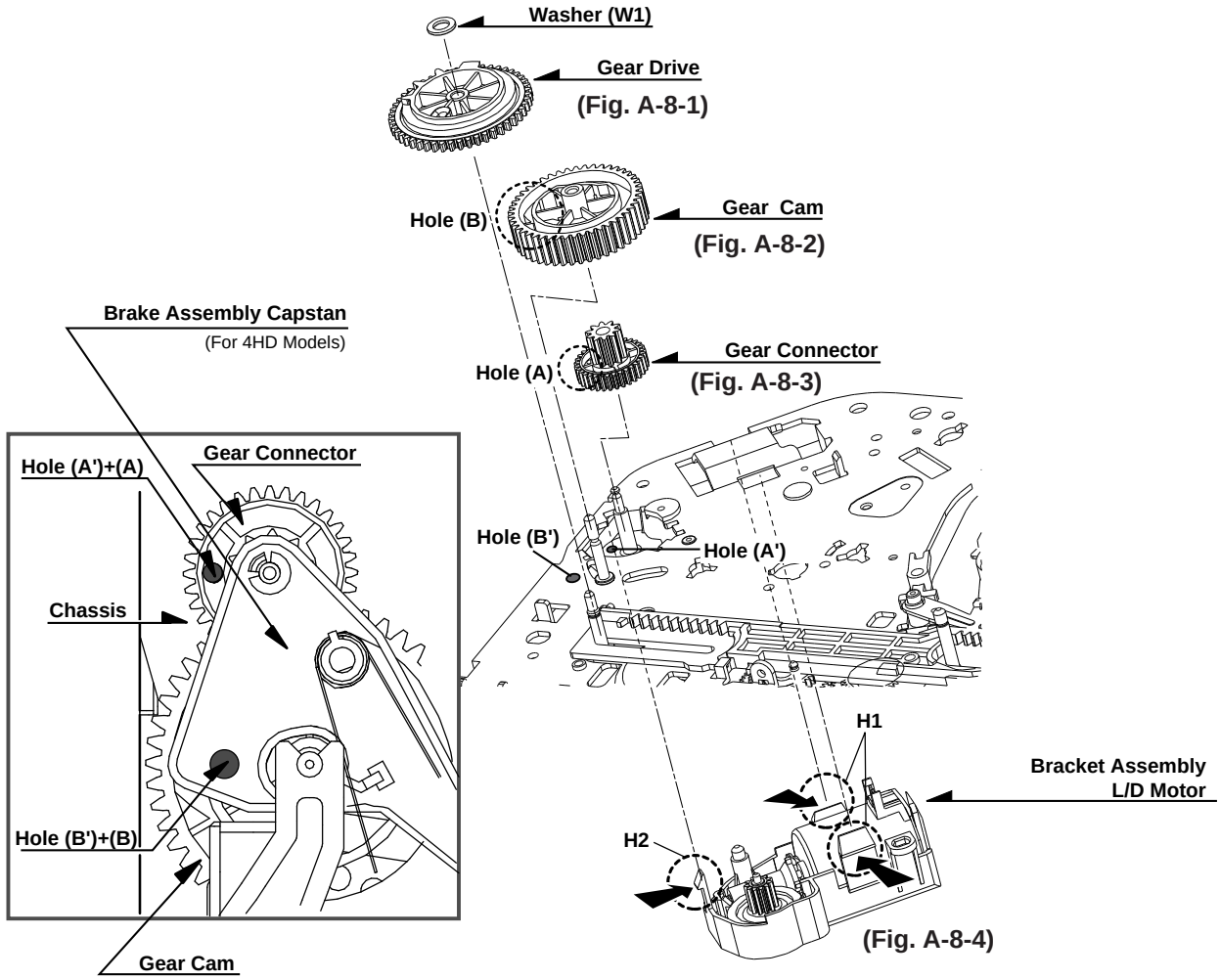


Fig. A-8

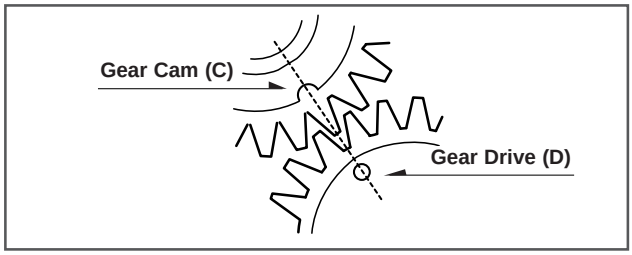
27. Gear Drive (Fig. A-8-1)/ Gear Cam (Fig. A-8-2)/ Gear Connector (Fig. A-8-3)

1) Remove the Washer(W1) and lift up the Gear Drive.
2) Lift up the Gear Cam.
3) Lift up the Gear Connector.

NOTE

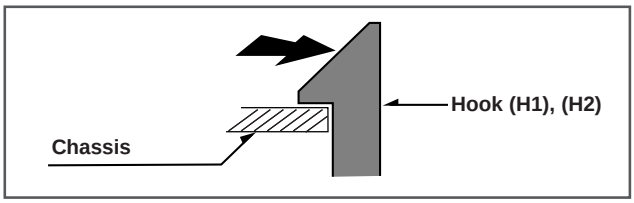
(1) When reassembling, confirm that the Hole (A) of the Gear Connector is aligned to the Hole (A') of the Chassis (Fig. A-8-3).
(2) When reassembling, confirm that the Hole (B) of the Gear Cam is aligned to the Hole (B') of the Chassis (Fig. A-8-2).
(3) When reassembling, confirm that the (C) part of the Gear Cam is aligned to the (D) part of the Gear Drive as shown Fig. B-3

(Fig. B-3)



28. Bracket Assembly L/D Motor (Fig. A-8-4)

1) Unhook the three Hooks(H1),(H2) and push down the Bracket Assembly L/D Motor.



DECK MECHANISM DISASSEMBLY

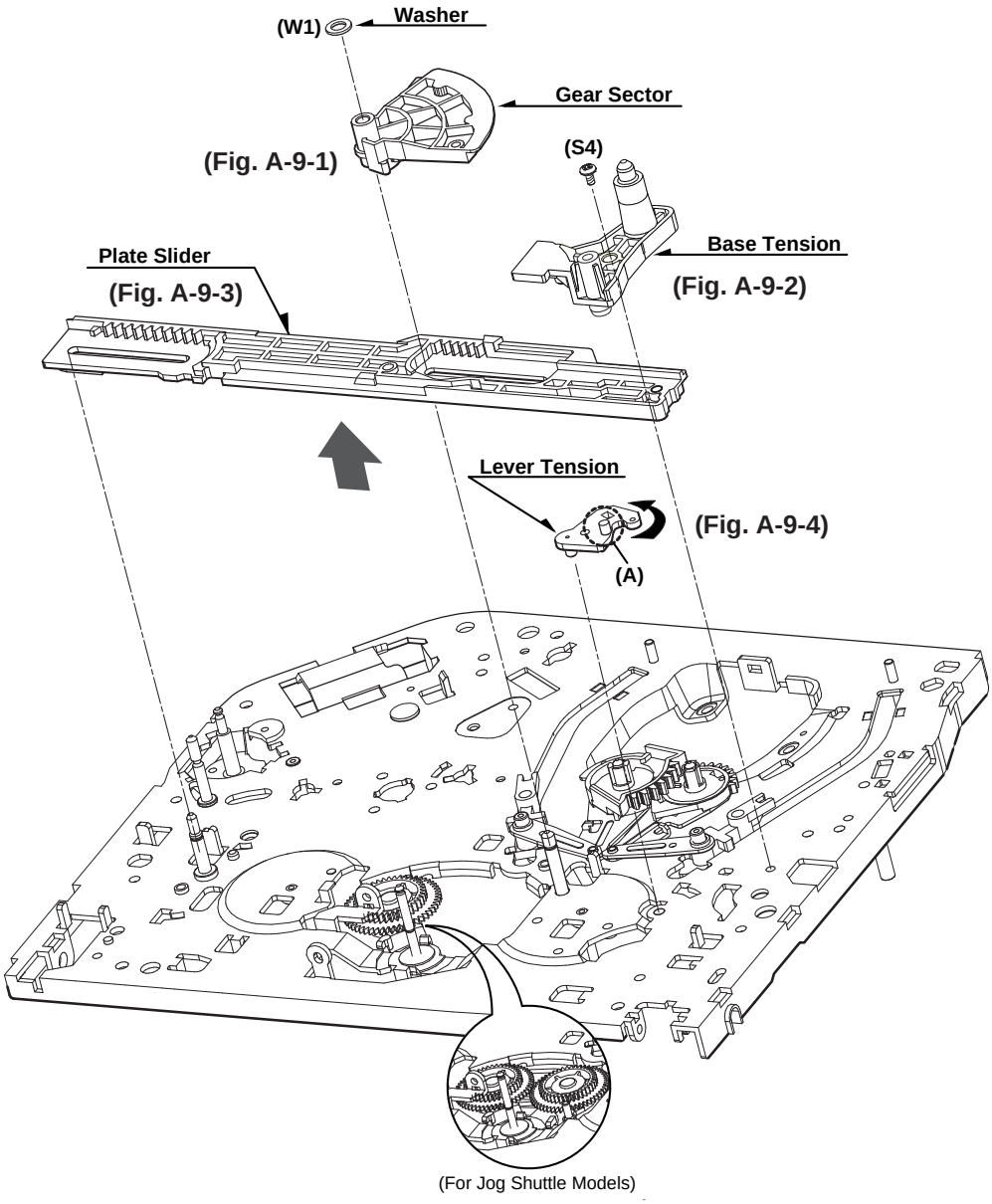


Fig. A-9

29. Gear Sector (Fig. A-9-1)

1) Remove the Washer(W1) and lift up the Gear Sector.

30. Base Tension (Fig. A-9-2)/ Plate Slider (Fig. A-9-3)/ Lever Tension (Fig. A-9-4)

1) Remove the Screw(S4) and lift up the Base Tension.
2) Lift up the Plate Slider.
3) Hold the (A) Part of the Lever Tension and turn to the counterclockwise direction, and then lift up the Lever Tension.

NOTE

(1) When reassembling, turn the Lever Tension to the clockwise direction in maximum.
(2) Push the plate slide right side to be guided by the shaft.

DECK MECHANISM DISASSEMBLY

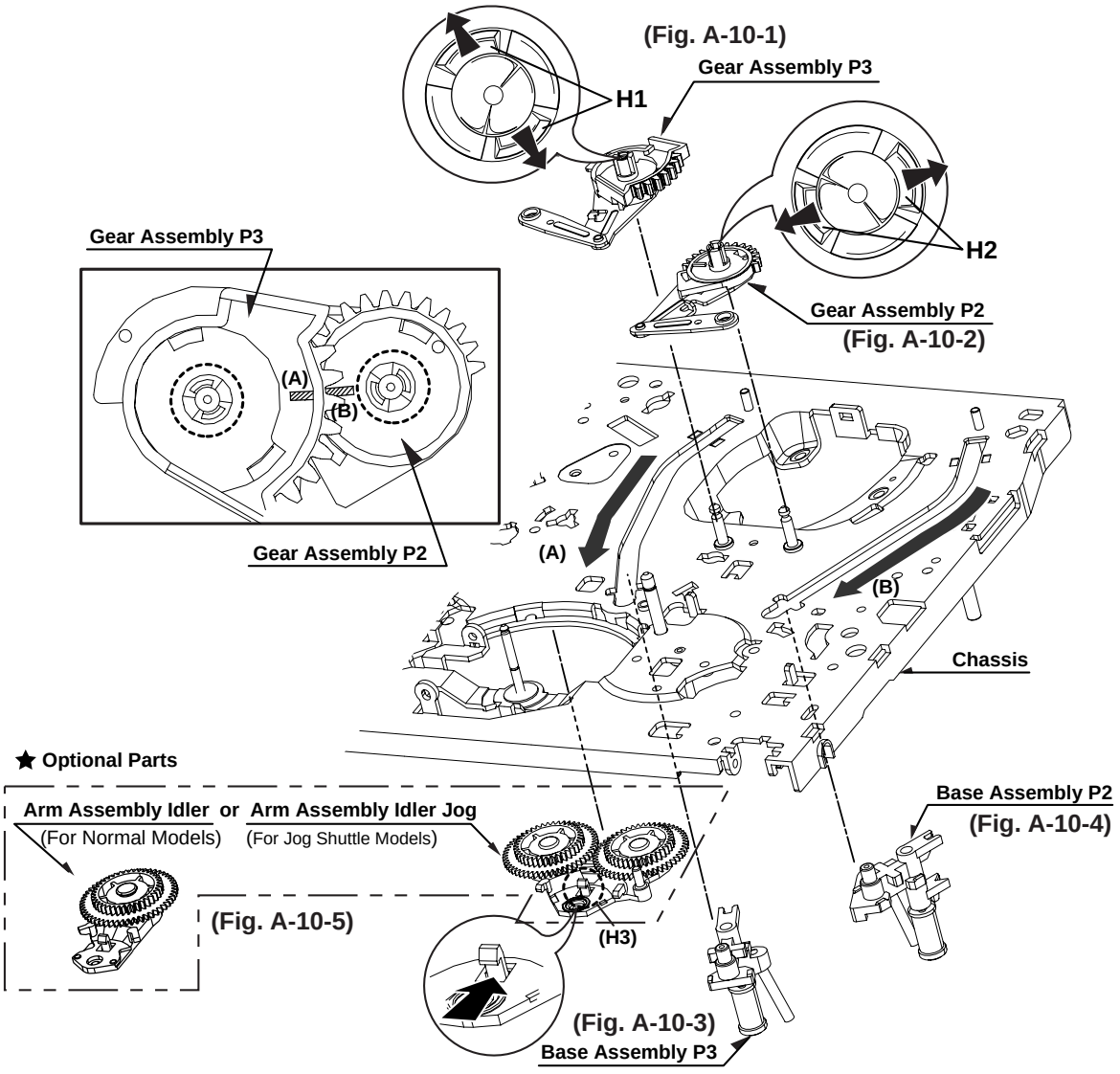


Fig. A-10

31. Gear Assembly P3 (Fig. A-10-1)/ Gear Assembly P2 (Fig. A-10-2)

1) Unhook the two Hooks(H1) and lift up the Gear Assembly P3.
2) Unhook the two Hooks(H2) and lift up the Gear Assembly P2.

32. Base Assembly P3 (Fig. A-10-3)/ Base Assembly P2 (Fig. A-10-4)

1) Move the Base Assembly P3 in the direction of the arrow of the Chassis Hole(A) and push down the Base Assembly P3.
2) Move the Base Assembly P2 in the direction of the arrow of the Chassis Hole(B) and push down the Base Assembly P2.

33. Arm Assembly Idler or Arm Assembly Idler Jog(Fig. A-10-5)

1) Unhook the Hook(H3) and push down the Arm Assembly Idler Jog.

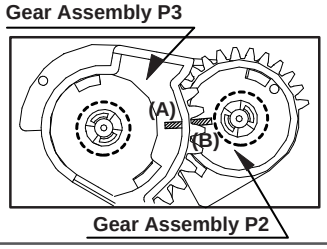
NOTE

1) Arm Assembly Idler is for Normal Models.
2) Arm Assembly Idler Jog is for Jog Shuttle Models.

NOTE

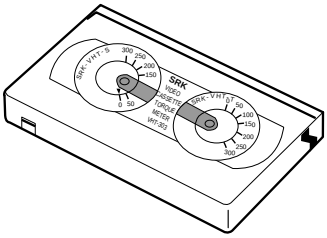
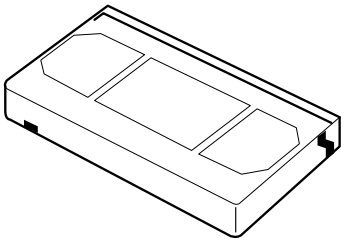
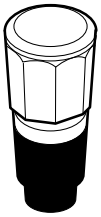
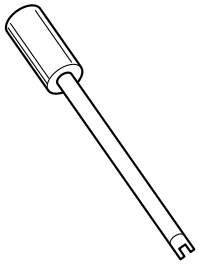
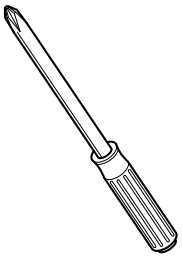
1) When reassembling, confirm that the (A) Part of the Gear Assembly P3 is aligned to the (B) Part of the Gear Assembly P2 as shown below.

(Unloading Condition)



DECK MECHANISM DISASSEMBLY

• Tools and Fixfures for Service

1. Cassette Torque meter **SRK-VHT-303(Not SVC part)** **Parts No: D00-D006** 	**2. Alignment tape** **Parts No NTSC: DTN-001** **PAL:DTN-0002** 	**3. Torque gauge** **600g.Cm ATG** **Parts No:D00-D002** 
4. Torque gauge adaptor **Parts No:D09-R001** 	**5. Post height adjusting driver** **Parts No:DTL-0005** 	**6. + Type driver (ø 5)** 

DECK MECHANISM ADJUSTMENT(FOR NORMAL MODELS)

1.Mechanism Alignment Position Check

Purpose:To determine if the Mechanism is in the correct position, when a Tape is ejected.

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Check Point
• Blank tape	• Eject Mode (with Cassette ejected)	• Mechanism and Mode Switch Position

1) Turn the Power S/W on and eject the Cassette by pressing the Eject Button.
2) Remove the Top Cover and Plate Assembly Top, visually check if the Gear Cam Hole is aligned with the Chassis Hole as below Fig. C-2.
3) IF not, rotate the Shaft of the Loading Motor to either Clockwise or Counterclockwise until the Alignment is as below Fig. C-2.
4) Remove the Screw which fixes the Deck Mechanism and Main Frame and confirm if the Gear Cam is aligned with the Gear Drive as below Fig. C-1(A).
5) Confirm if the Mode S/W on the Main P.C.Board is aligned as below Fig. C-1(B).
6) Remount the Deck Mechanism on the Main P.C.Board and check each operation.

CHECK DIAGRAM

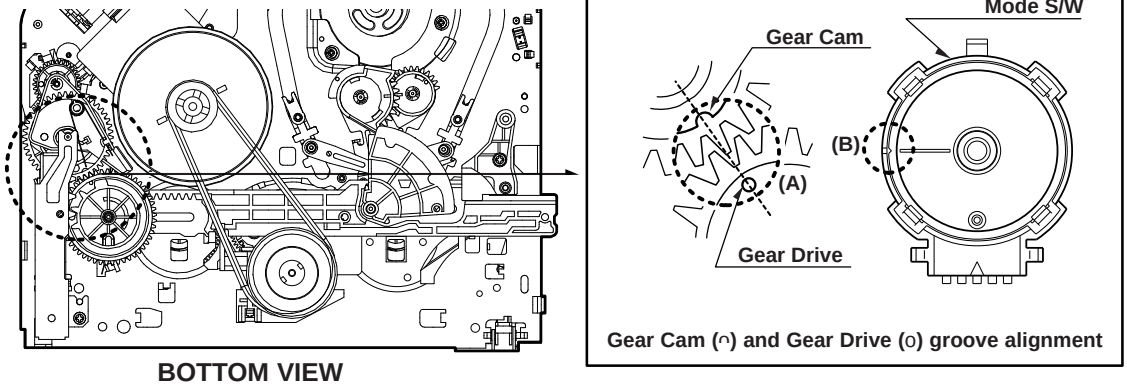


Fig. C-1

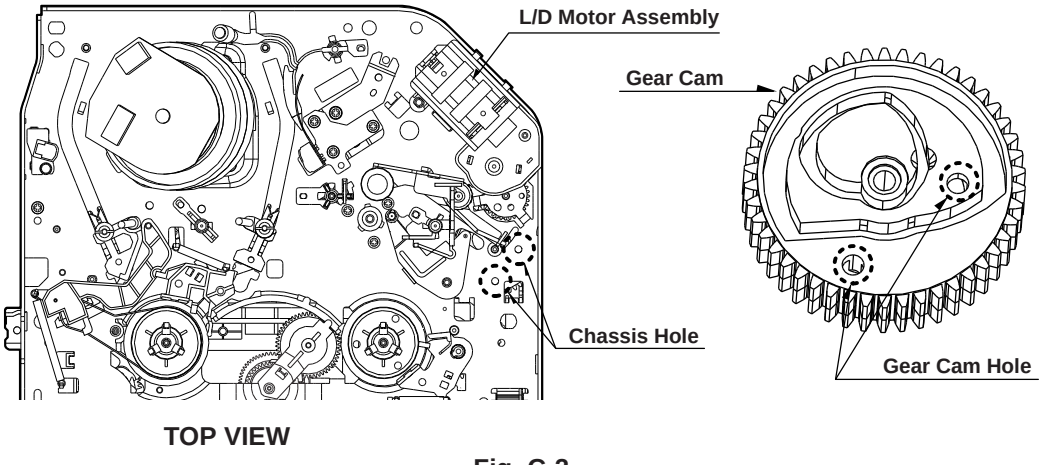


Fig. C-2

DECK MECHANISM ADJUSTMENT(FOR JOG SHUTTLE MODELS)

1.Mechanism Alignment Position Check

Purpose:To determine if the Mechanism is in the correct position, when a Tape is ejected.

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Check Point
• Blank tape	• Eject Mode (with Cassette ejected)	• Mechanism and Mode Switch Position

1) Turn the Power S/W on and eject the Cassette by pressing the Eject Button.
2) Remove the Top Cover and Plate Assembly Top, visually check if the Gear Cam Hole is aligned with the Chassis Hole as below Fig. C-2.
3) IF not, rotate the Shaft of the Loading Motor to either Clockwise or Counterclockwise until the Alignment is as below Fig. C-2.
4) Remove the Screw which fixes the Deck Mechanism and Main Frame and confirm if the Gear Cam is aligned with the Gear Drive as below Fig. C-1(A).
5) Confirm if the Mode S/W on the Main P.C.Board is aligned as below Fig. C-1(B).
6) Remount the Deck Mechanism on the Main P.C.Board and check each operation.

CHECK DIAGRAM

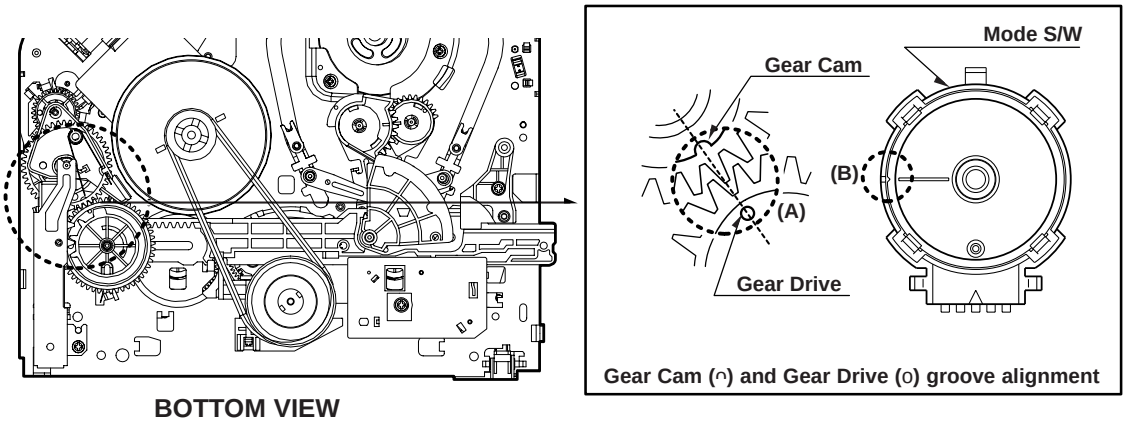


Fig. C-1

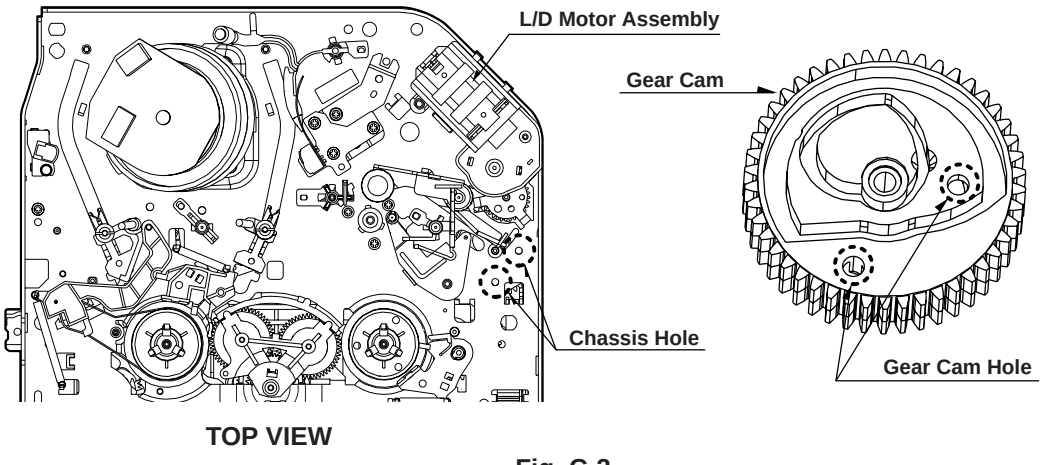


Fig. C-2

DECK MECHANISM ADJUSTMENT

2. Preparation for Adjustment (To set the Deck Mechanism to the Loading state without inserting a Cassette Tape).

1) Unplug the Power Cord from the AC Outlet.
2) Disassemble the Top Cover and Plate Assembly Top.
3) Plug the Power Cord into the AC Outlet.
4) Turn the Power S/W on and push the Lever Stopper (L),(R) of the Holder Assembly CST to the back for Loading the Cassette without Tape.
Cover the Holes of the End Sensors at the both sides of the Bracket Side(L) and Bracket Assembly Door to prevent a light leak.
Then The Deck Mechanism drives to the Stop Mode.
In this case, The Deck Mechanism can accept inputs of each mode, however the Rewind and Review Operation can not be performed for more than a few seconds because the Take-up Reel Table is in the Stop State and can not be detected the Reel Pulses.

3. Checking Torque

Purpose: To insure smooth Transport of the Tape during each Mode of Operation.
If the Tape Transport is abnormal, then check the Torque as indicated by the chart below.

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Checking Method
• Torque Gauge(600g/cm ATG) • Torque Gauge Adaptor • Cassette Torque Meter SRK-VHT-303	• Play (FF) or Review (REW) Mode	• Perform each Deck Mechanism Mode without inserting a Cassette Tape(Refer to above No.2 Preparation for Adjustment). • Read the Measurement of the Take-up or Supply Reels on the Cassette Torque Meter(Fig. C-3-2). • Attach the Torque Gauge Adaptor to the Torque Gauge and then read the Value of it(Fig. C-3-1).

Item	Mode	Test Equipment	Measurement Reel	Measurement Values
Fast Forward Torque	Fast Forward	Cassette Torque Gauge	Take-Up Reel	More than 400g/cm
Rewind Torque	Rewind	Cassette Torque Gauge	Supply Reel	More than 400g/cm
Play Take-Up Torque	Play	Cassette Torque Meter	Take-Up Reel	70~120g/cm
Review Torque	Review	Cassette Torque Meter	Supply Reel	130~210g/m

NOTE:

The Values are measured by using a Torque Gauge and Torque Gauge Adaptor with the Torque Gauge affixed.

• Cassette Torque Meter (SRK-VHT-303)

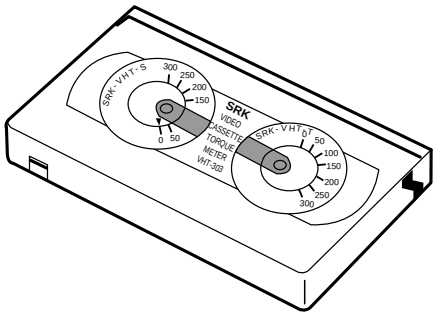


Fig. C-3-2

NOTE:

The Torque reading to measure occurs when the Tape abruptly changes direction from Fast Forward of Rewind Mode, when quick bracking is applied to both Reels.

• Torque Gauge (600g.cm ATG)

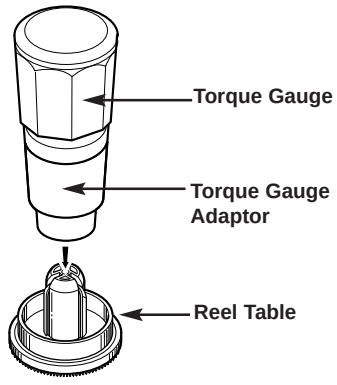


Fig. C-3-1

DECK MECHANISM ADJUSTMENT

4.Guide Roller Height Adjustment

Purpose: To regulate the Height of the Tape so that the Bottom of the Tape runs along the Tape Guide Line on the Lower Drum.

4-1. Preliminary Adjustment

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Adjustment Point
• Post Height Adjusting Driver	• Play or Review Mode	• Guide Roller Height Adjustment screws on the Supply and Take-Up Guide Rollers.

Adjustment Procedure

1) Confirm if the Tape runs along the Tape Guide Line of the Lower Drum.
2) If the Tape runs the Bottom of the Guide Line, turn the Guide Roller Height Adjustment Screw to Clockwise direction.
3) If it runs the Top, turn to Counterclockwise direction.
4) Adjust the Height of the Guide Roller to be guided to the Guide Line of the Lower Drum from the Starting and Ending Point of the Drum.

ADJUSTMENT DIAGRAM

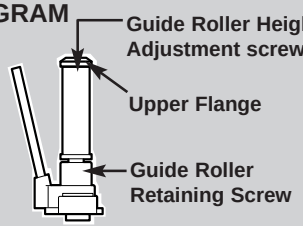


Fig. C-4-1

4-2. Precise Adjustment

Test Equipment/Fixture	Test Equipment Connection Points	Test Conditions VCR(VCP) State	Adjustment Point
• Oscilloscope • Alignment Tape • Post Height Adjusting Driver	• CH-1:PB RF Envelope • CH-2:NTSC: SW 30Hz PAL: SW 25Hz • Head Switching Output Point • RF Envelope Output Point	• Play an Alignment Tape	• Guide Roller Height Adjustment Screws

Adjustment Procedure

1) Play an Alignment Tape after connecting the Probe of the Oscilloscope to the RF Envelope Output Test Point and Head Switching Output Test Point.
2) Tracking Control(in PB Mode) : Center Position(When this Adjustment is performed after the Drum Assembly has been replaced, set the Tracking Control so that the RF Output is Maximum).
3) Height Adjustment Screw : Flatten the RF Waveform. (Fig. C-4-2)
4) Turn(Move) the Tracking Control(in PB Mode) Clockwise and Counterclockwise.(Fig. C-4-3)
5) Check that any Drop of RF Output is uniform at the Start and End of the Waveform.

NOTE

If the adjustment is excessive or insufficient the tape will jam or fold.

Waveform Diagrams

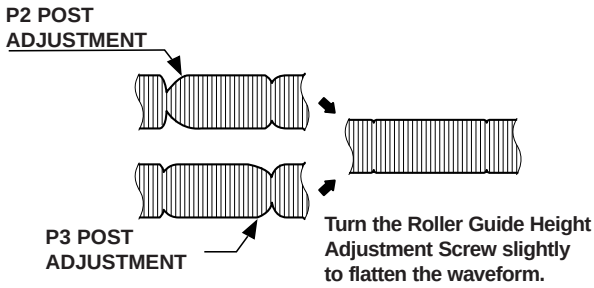


Fig. C-4-2

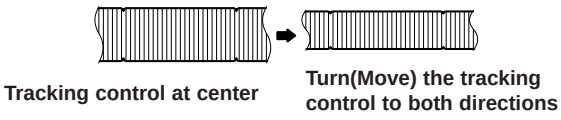
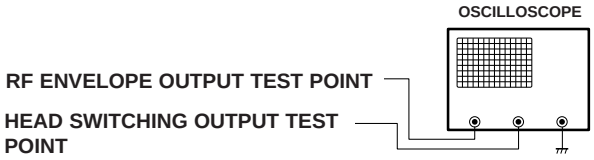


Fig. C-4-3

Connection Diagram



DECK MECHANISM ADJUSTMENT

5. Audio/Control (A/C) Head Adjustment

Purpose: To insure that the Tape passes accurately over the Audio and Control Tracks in exact Alignment in both the Record and Playback Modes.

5-1. Preliminary Adjustment (Height and Tilt Adjustment)

Perform the Preliminary Adjustment, when there is no Audio Output Signal with the Alignment Tape.

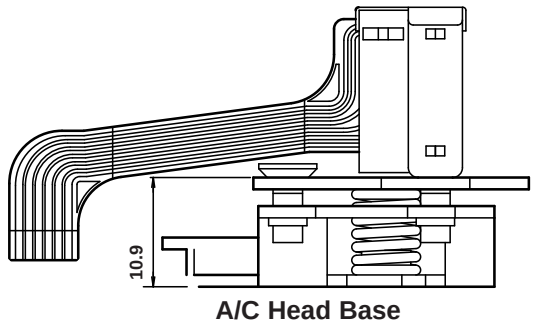
Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Adjustment Point
• Blank Tape • Screw Driver(+) Type 5mm	• Play the blank tape	• Tilt Adjustment Screw(C) • Height Adjustment Screw(B) • Azimuth Adjustment Screw(A)

Adjustment Procedure/Diagrams

1) Initially adjust the Base Assembly A/C Head as shown Fig. C-5-1 by using the Height Adjustment Screw(B).
2) Play a Blank Tape and observe if the Tape passes accurately over the A/C Head without Tape Curling or Folding.
3) If Folding or Curling is occured then adjust the Tilt Adjustment Screw(C) while the Tape is running to resemble Fig. C-5-3.
4) Reconfirm the Tape Path after Playback about 4~5 seconds.

NOTE

Ideal A/C head height occurs, when the tape runs between 0.2~0.25mm above the bottom edge of the A/C head core.



A/C Head Base

Fig. C-5-1

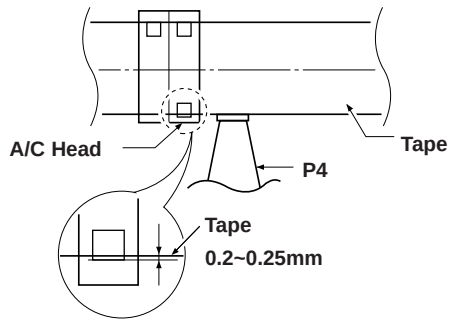
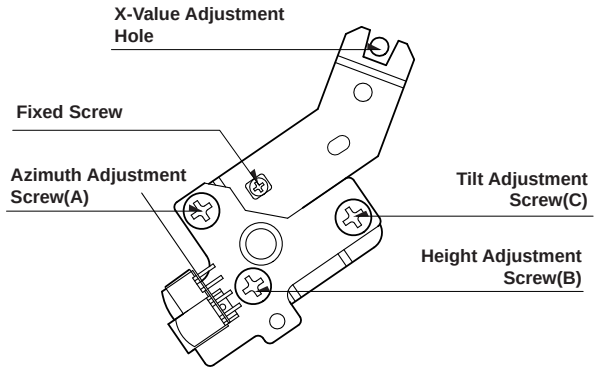


Fig. C-5-3



A/C Head Assembly

Fig. C-5-2

5-2. Confirm that the Tape passes smoothly between the Take-up Guide and Pinch Roller(using a Mirror or the naked eye).

1) After completing Step 5-1.(Preliminary Adjustment), check that the Tape passes around the Take-up Guide and Pinch Roller without Folding or Curling at the Top or Bottom.
   (1) If Folding or Curling is observed at the Bottom of the Take-up Guide then slowly turn the Tilt Adjustment Screw(C) in the Clockwise direction.
   (2) If Folding or Curling is observed at the Top of it then slowly turn the Tilt Adjustment Screw(C) in the Counterclockwise direction.

NOTE:

Check the RF Envelope after adjusting the A/C Head, if the RF Waveform differs from Fig. C-5-4, performs Precise Adjustment to flat the RF Waveform.

5-3. Precise Adjustment (Azimuth adjustment)

Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Point
• Oscilloscope • Alignment Tape(SP) • Screw Driver(+) Type 5mm	• Audio output jack	• Play an Alignment Tape 1KHz, 7KHz Sections	• Azimuth Adjustment Screw(A) • Height Adjustment Screw(B)

Adjustment Procedure

1) Connect the Probe of the Oscilloscope to Audio Output Jack.
2) Alternately adjust the Azimuth Adjustment Screw(A) and the Tilt Adjustment Screw(C) for Maximum Output of the 1Khz and 7Khz segments, while maintaining the flattest Envelope differential between the two Frequencies.

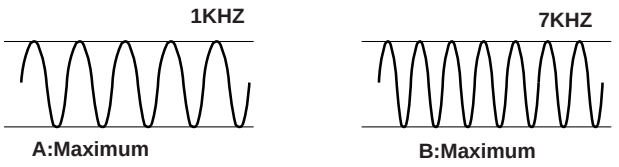
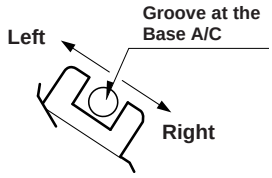


Fig. C-5-4

6. X-Value Adjustment

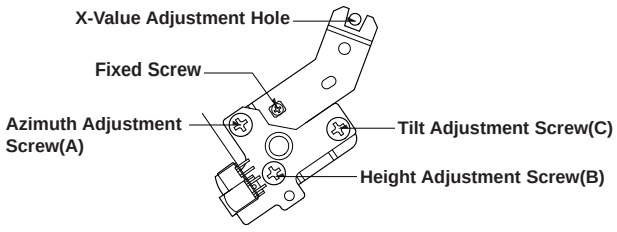
Purpose: To obtain compatibility with other VCR(VCP) Models.

Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Point
• Oscilloscope • Alignment tape(SP only) • Screw Driver(+) Type 5mm	• CH-1: PB RF Envelope • CH-2: NTSC: SW 30Hz PAL: SW 25Hz • Head Switching Output Test Point • RF Envelope Output Test Point	• Play an Alignment Tape	

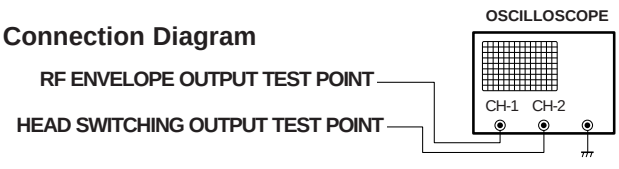
Adjustment Procedure

1) Release the Automatic Tracking to run long enough for Tracking to complete it's Cycle.
2) Loosen the Fixed Mounting Screw and move the Base Assembly A/C Head in the direction as shown in the Diagram to find the center of the peak that allows for the maximum Waveform Envelope.
   This method should allow the 31um Head to be centrally located over the 58um Tape Track.
3) Tighten the Base Assembly A/C Head mounting Screw.

Adjustment Diagram



Connection Diagram



DECK MECHANISM ADJUSTMENT

7. Adjustment after Replacing Drum Assembly (Video Heads)

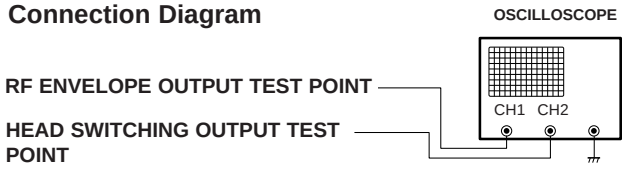
Purpose: To correct for shift in the Roller Guide and X value after replacing the Drum.

Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Points
• Oscilloscope • Alignment tapes • Blank Tape • Post Height Adjusting Driver • Screw Driver(+) Type 5mm	• CH-1: PB RF Envelope • CH-2: NTSC: SW 30Hz PAL: SW 25Hz • Head Switching Output Test Point • RF Envelope Output Test Point	• Play the blank tape • Play an alignment tape	• Guide Roller Precise Adjustment • Switching Point • Tracking Preset • X-Value

Checking/Adjustment Procedure

Play a blank tape and check for tape curling or creasing around the roller guide. If there is a problem then follow the procedure 4. "Guide Roller Height" and 5. "Audio Control(A/C) Head Adjustment".

Connection Diagram



Waveform

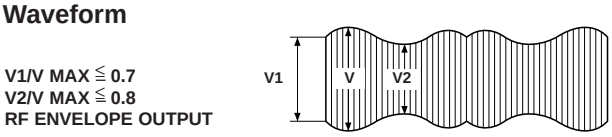


Fig. C-7

8. Check the Tape Travel after Reassembling Deck Assembly.

8-1.Check Audio and RF Locking Time during playback and after CUE or REV (FF/REW)

Test Equipment/ Fixture	Specification	Connection Points	Test Conditions (Mechanism Condition)
• Oscilloscope • Alignment tapes(with 6H 3kHz Color Bar Signal) • Stop Watch	• RF Locking Time: Less than 5 sec. • Audio Locking Time:Less than 10sec	• CH-1: PB RF Envelope • CH-2: Audio Output • RF Envelope Output Point • Audio Output Jack	• Play an alignment tape (with 6H 3kHz Color Bar Signal)

Checking Procedure

Play an alignment tape then change the operating mode to CUE or REV and confirm if the unit meets the above listed specifications.

NOTES:

1) CUE is fast forward mode (FF)
2) REV is the rewind mode (REW)
3) Referenced to the Play mode

8-2.Check for tape curling or jamming

Test Equipment/ Fixture	Specification	Test Conditions (Mechanism Condition)
• T-160 Tape • T-120 Tape	• Be sure there is no tape jamming or curling at the begining, middle or end of the tape.	• Run the CUE, REV play mode at the beginning and the end of the tape.

Checking Procedure

1) Confirm that the tape runs smoothly around the roller guides, drum and A/C head assemblies while abruptly changing operating modes from Play to CUE or REV. This is to be checked at the begining, middle and end sections of the cassette.
2) Confirm that the tape passes over the A/C head assembly as indicated by proper audio reproduction and proper tape counter performance.

MAINTENANCE/INSPECTION PROCEDURE(FOR NORMAL MODELS)

1 Check before starting repairs

The following faults can be remedied by cleaning and oiling. Check the needed lubrication and the conditions of cleanliness in the unit.
Check with the customer to find out how often the unit is used, and then determine that the unit is ready for inspection and maintenance. Check the following parts.

Phenomenon	Inspection	Replacement
Color beats	Dirt on full-erase head	o
Poor S/N, no color	Dirt on video head	o
Vertical or Horizontal jitter	Dirt on video head Dirt on tape transport system	o
Low volume, Sound distorted	Dirt on Audio/control head	o
Tape does not run. Tape is slack	Dirt on pinch roller	o
In Review and Unloading (off mode), the Tape is rolled up loosely.	Clutch Assembly D33K Torque reduced	o
	Cleaning Drum and transport system	Fig. C-9-3

F/E Head
Video Head
A/C Head
Pinch Roller
Belt Capston
Clutch Assembly D33K

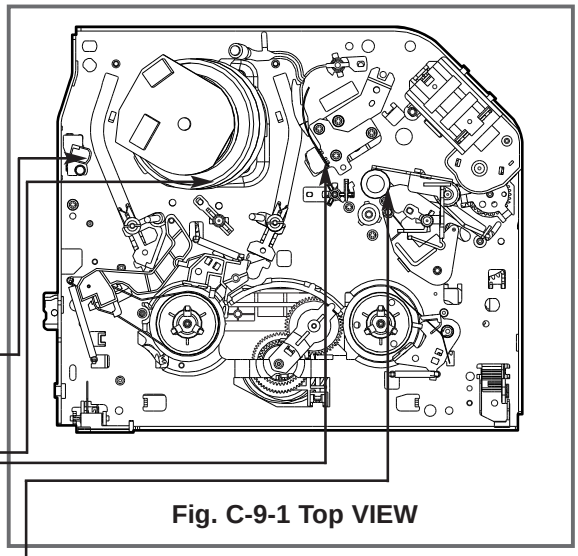


Fig. C-9-1 Top VIEW

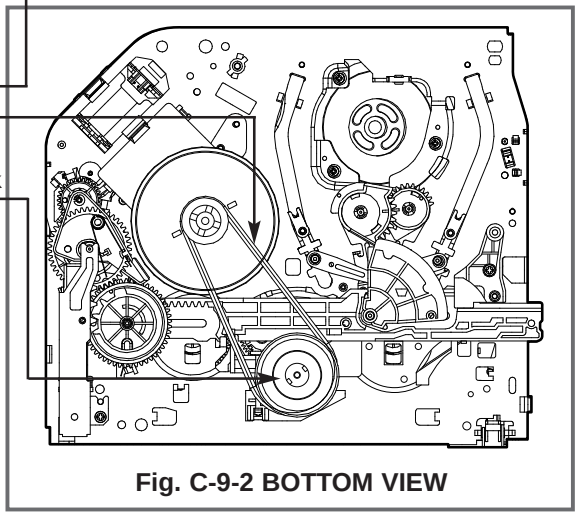


Fig. C-9-2 BOTTOM VIEW

NOTE

If locations marked with **o** do not operate normally after cleaning, check for wear and replace.
See the EXPLODED VIEWS at the end of this manual as well as the above illustrations See the Greasing (Page 4-22) for the sections to be lubricated and greased.

*** No. (1)~(13) Indicates the Tape Path to be traveled from Supply Reel to Take-up Reel.**

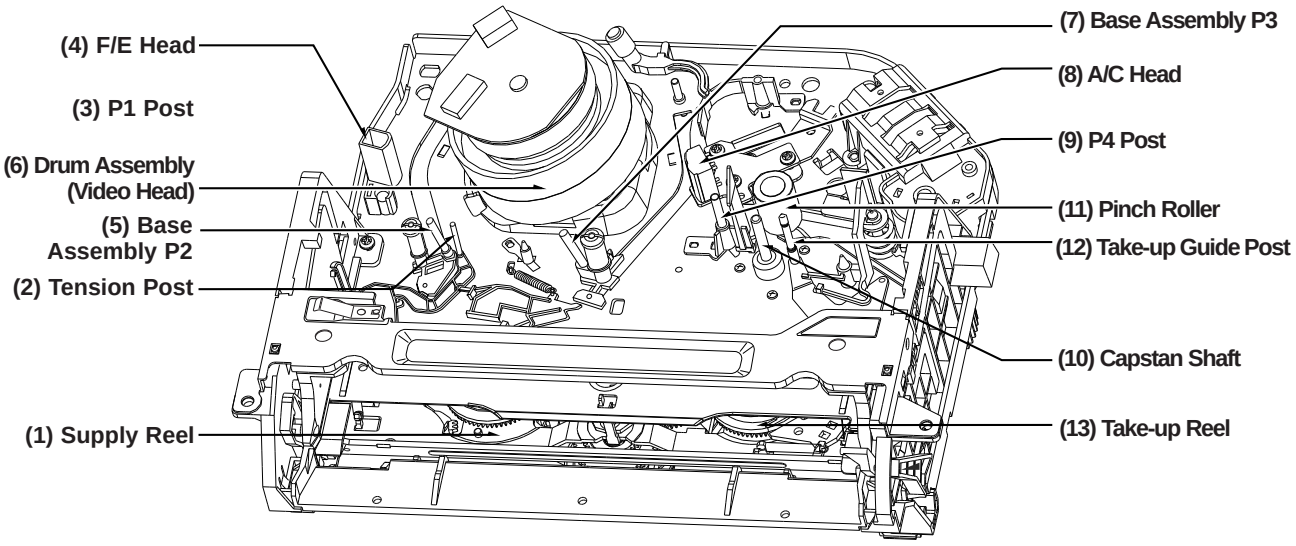


Fig. C-9-3 Tape Transport System

MAINTENANCE/INSPECTION PROCEDURE(FOR JOG SHUTTLE MODELS)

1 Check before starting repairs

The following faults can be remedied by cleaning and oiling. Check the needed lubrication and the conditions of cleanliness in the unit.
Check with the customer to find out how often the unit is used, and then determine that the unit is ready for inspection and maintenance. Check the following parts.

Phenomenon	Inspection	Replacement
Color beats	Dirt on full-erase head	o
Poor S/N, no color	Dirt on video head	o
Vertical or Horizontal jitter	Dirt on video head Dirt on tape transport system	o
Low volume, Sound distorted	Dirt on Audio/control head	o
Tape does not run. Tape is slack	Dirt on pinch roller	o
In Review and Unloading (off mode), the Tape is rolled up loosely.	Clutch Assembly D33K Torque reduced	o
	Cleaning Drum and transport system	Fig. C-9-3

F/E Head
Video Head
A/C Head
Pinch Roller
Belt Capston
Clutch Assembly D33K

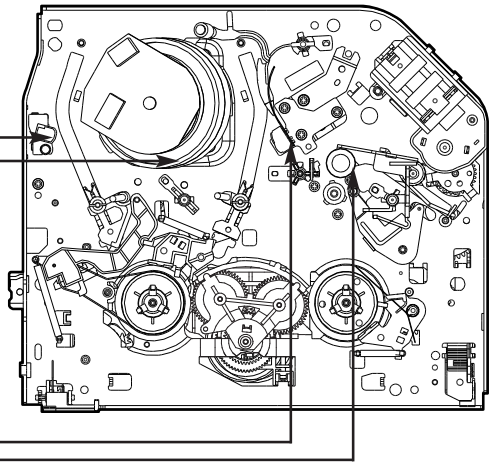


Fig. C-9-1 Top VIEW

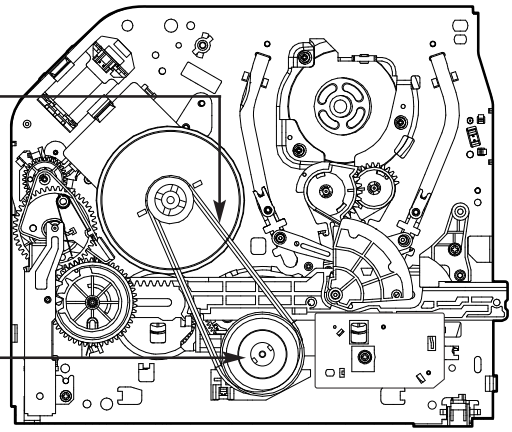


Fig. C-9-2 BOTTOM VIEW

NOTE

If locations marked with **o** do not operate normally after cleaning, check for wear and replace.
See the EXPLODED VIEWS at the end of this manual as well as the above illustrations See the Greasing (Page 4-22) for the sections to be lubricated and greased.

*** No. (1)~(13) Indicates the Tape Path to be traveled from Supply Reel to Take-up Reel.**

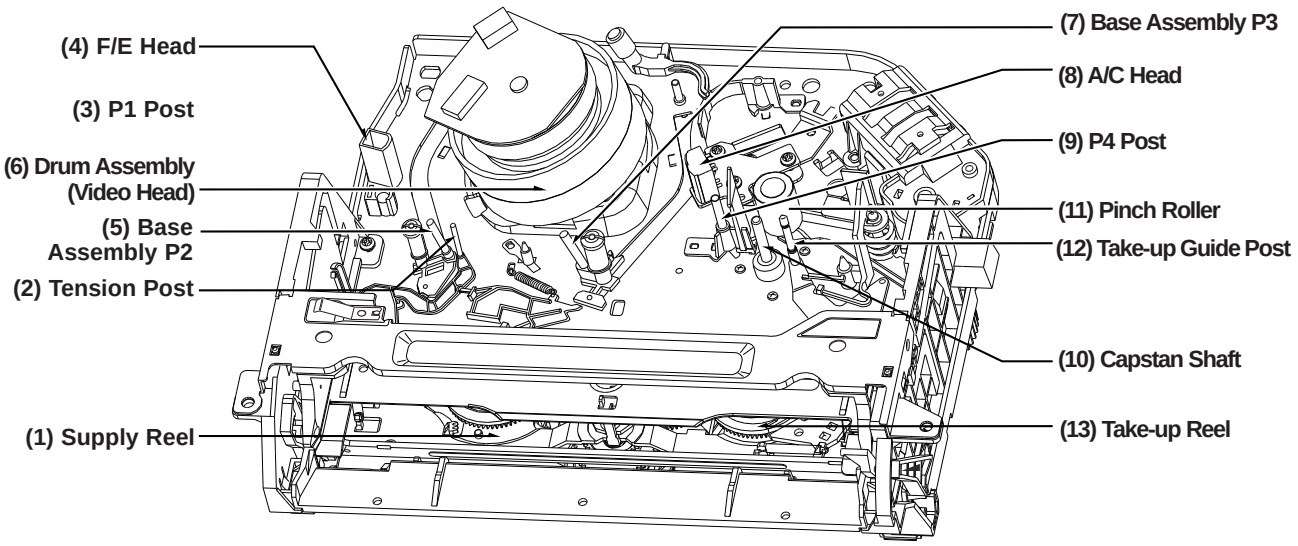


Fig. C-9-3 Tape Transport System

MAINTENANCE/INSPECTION PROCEDURE

2. Required Maintenance

The recording density of a VCR(VCP) is much higher than that of an audio tape recorder. VCR(VCP) components must be very precise, at tolerances of 1/1000mm, to ensure compatiblity with other VCRs. If any of these components are worn or dirty, the symptoms will be the same as if the part is defective. To ensure a good picture, periodic inspection and maintenance, including replacement of worn out parts and lubrication, is necessary.

3. Scheduled Maintenance

Schedules for maintenance and inspection are not fixed because they vary greatly according to the way in which the customer uses the VCR(VCP), and the environment in which the VCR(VCP) is used.
But, in general home use, a good picture will be maintained if inspection and maintenance is made every 1,000 hours. The table below shows the relation between time used and inspection period.

Table 1

When inspection is necessary / Average hours used per day	About 1 year	About 18 months	About 3 years
One hour	■	■	■
Two hours	■	■	
Three hours	■		

4. Supplies Required for Inspection and Maintence

(1) Grease : Kanto G-311G (Blue) or equivalent
(2) Isopropyl Alcohol or equivalent
(3) Cleaning Patches
(4) Grease : Kanto G-381(Yellow) : Used only for Reel S and Reel T

5) Maintenance Procedure

5-1) Cleaning

(1) Cleaning video head
First use a cleaning tape. If the dirt on the head is too stubborn to remove by tape, use the cleaning patch. Coat the cleaning patch with Isopropyl Alcohol. Touch the cleaning patch to the head tip and gently turn the head(rotating cylinder) right and left.
(Do not move the cleaning patch vertically. Make sure that only the buckskin on the cleaning patch comes into contact with the head. Otherwise, the head may be damaged.)
Thoroughly dry the head. Then run the test tape. If lsopropyl Alcohol remains on the video head, the tape may be damaged when it comes into contact with the head surface.
(2) Clean the tape transport system and drive system, etc, by wiping with a cleaning patch wetted with Isporopyl Alcohol.

NOTES:

① It is the tape transport system which comes into contact with the running tape. The drive system consists of those parts which moves the tape.
② Make sure that during cleaning you do not touch the tape transport system with the tip of a screw driver and no that force is that would cause deforming or damage applied to the system.

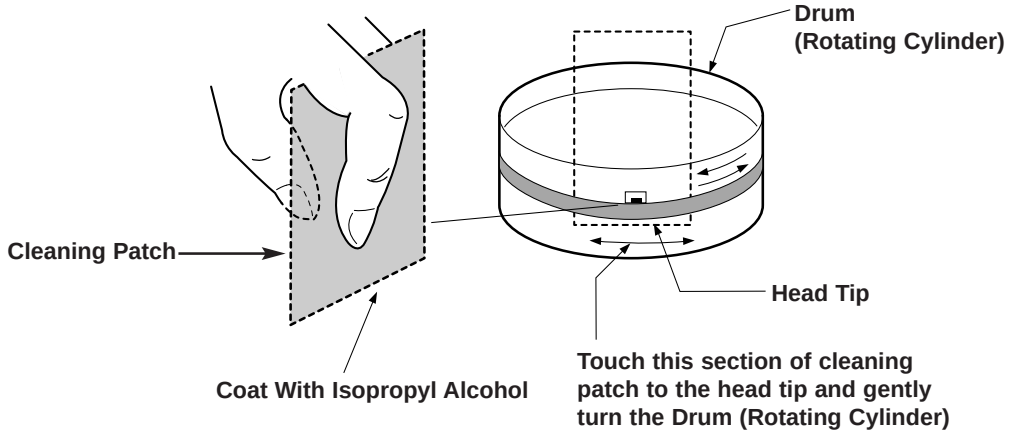

Drum
(Rotating Cylinder)
Cleaning Patch
Head Tip
Coat With Isopropyl Alcohol
Touch this section of cleaning patch to the head tip and gently turn the Drum (Rotating Cylinder)

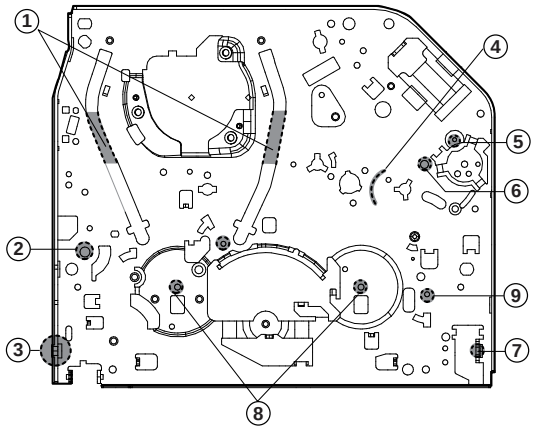
Fig. C-9-4

5-2) Greasing

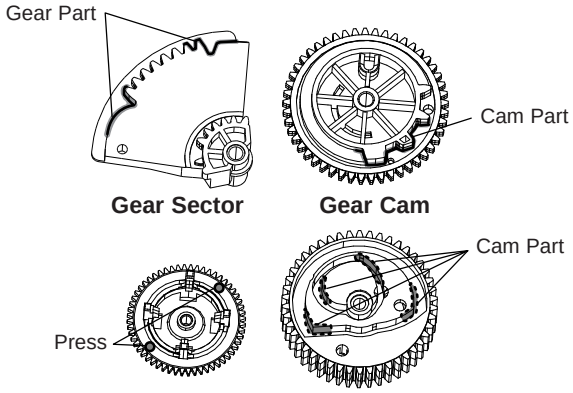
(1) Greasing guidelines
Apply grease, with a cleaning patch. Do not use excess grease. It may come into contact with the tape transport or drive system. Wipe any excess and clean with clean ing patch wetted in Isopropyl Alcohol.

NOTE:Greasing Points

1) Loading Path Inside & Top side
2) Base Tension Boss inside Hole
3) Arm Assembly F/L "U" Groove
4) Arm Take-up Rubbing Section
5) L/D Motor Worm Wheel Part
6) Shaft
7) Arm Assembly F/L of Buming Inside Hole
8) Reel S, T Shaft (G381:Yellow)
9) Brake T Groove

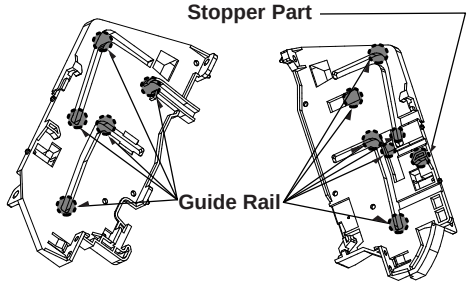


Chassis (Top)



Gear Sector **Gear Cam**

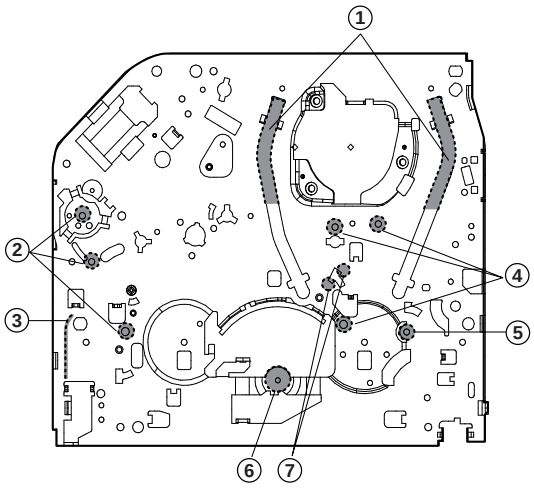
Gear Assembly Up/D **Gear Drive**



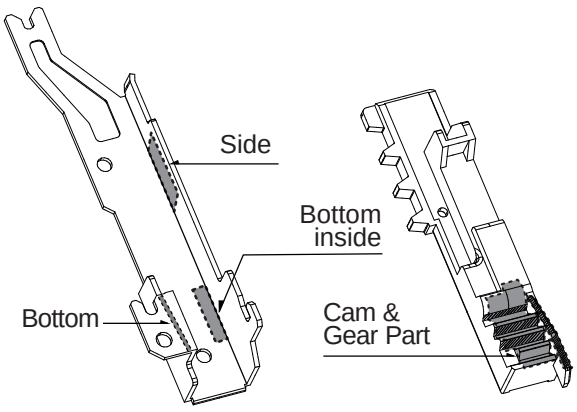
Bracket Side (L) **Bracket Assembly Door**

(2) Periodic greasing
Grease specified locations every 5,000 hours.

1) Loading Path Inside & Top side
2) Shaft
3) Gear Rack F/L Moving Section
4) Shaft
5) Lever Tension Groove
6) Clutch Assembly D33 Shaft
7) Brake "S" Rubbing Section



Chassis (Bottom)



Guide Rack F/L **Gear Rack F/L**

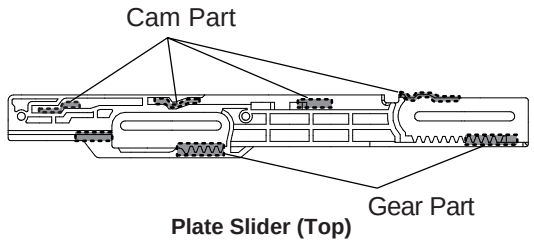


Plate Slider (Top)

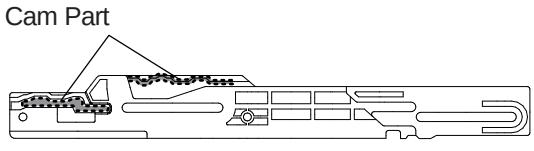
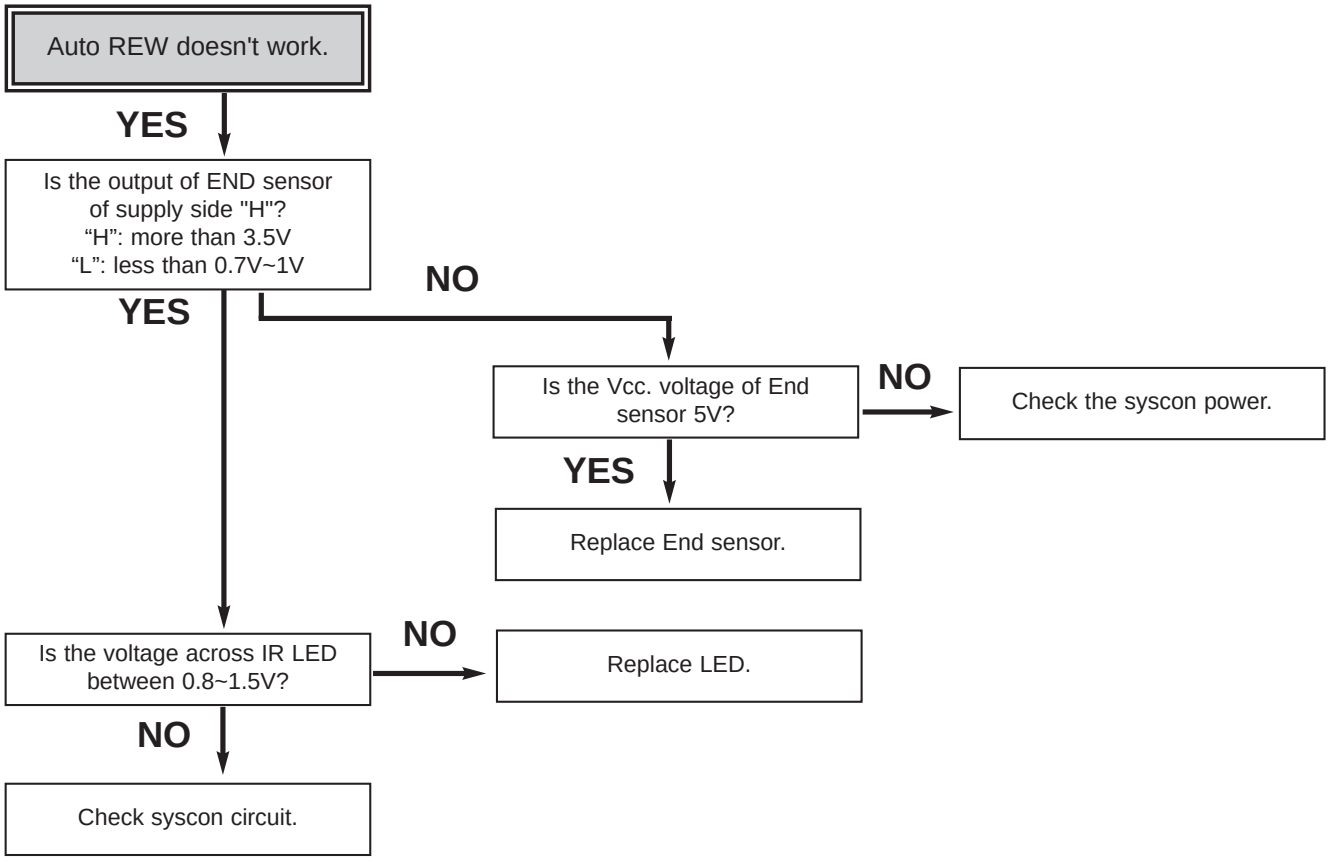


Plate Slider (Bottom)

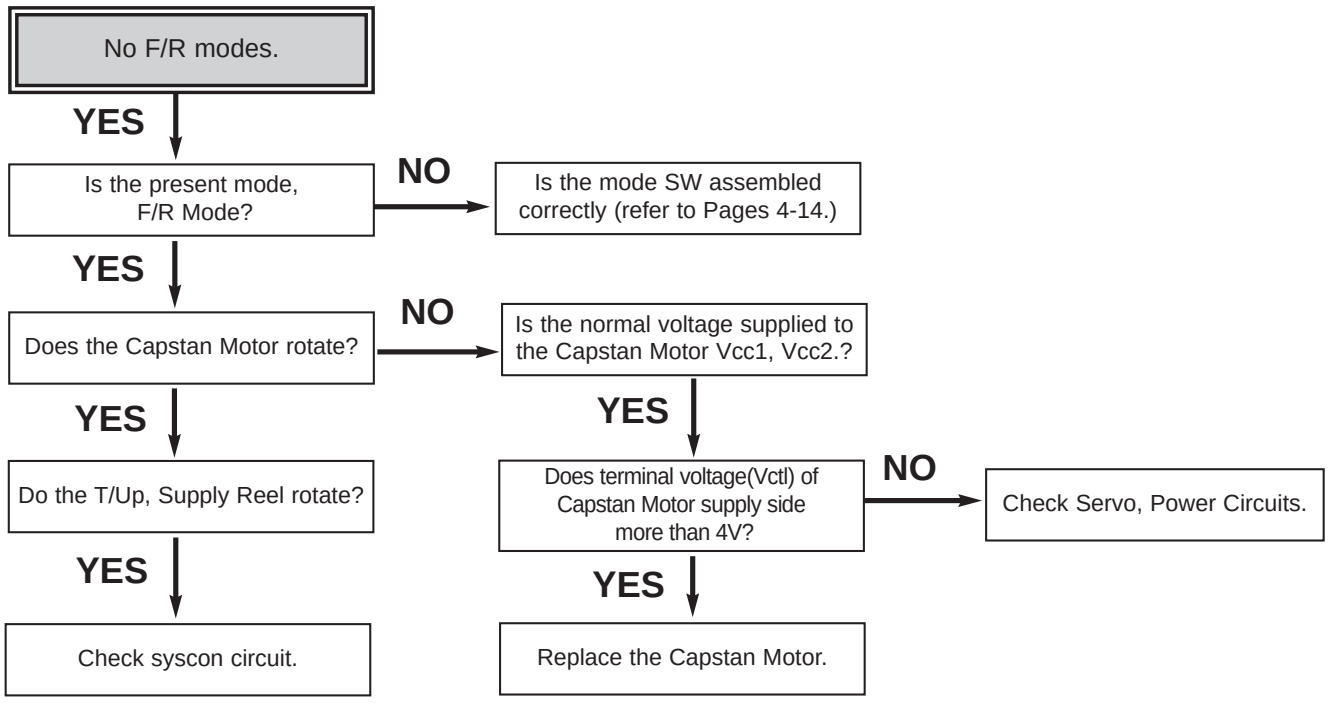
MECHANISM TROUBLESHOOTING GUIDE

1.Deck Mechanism

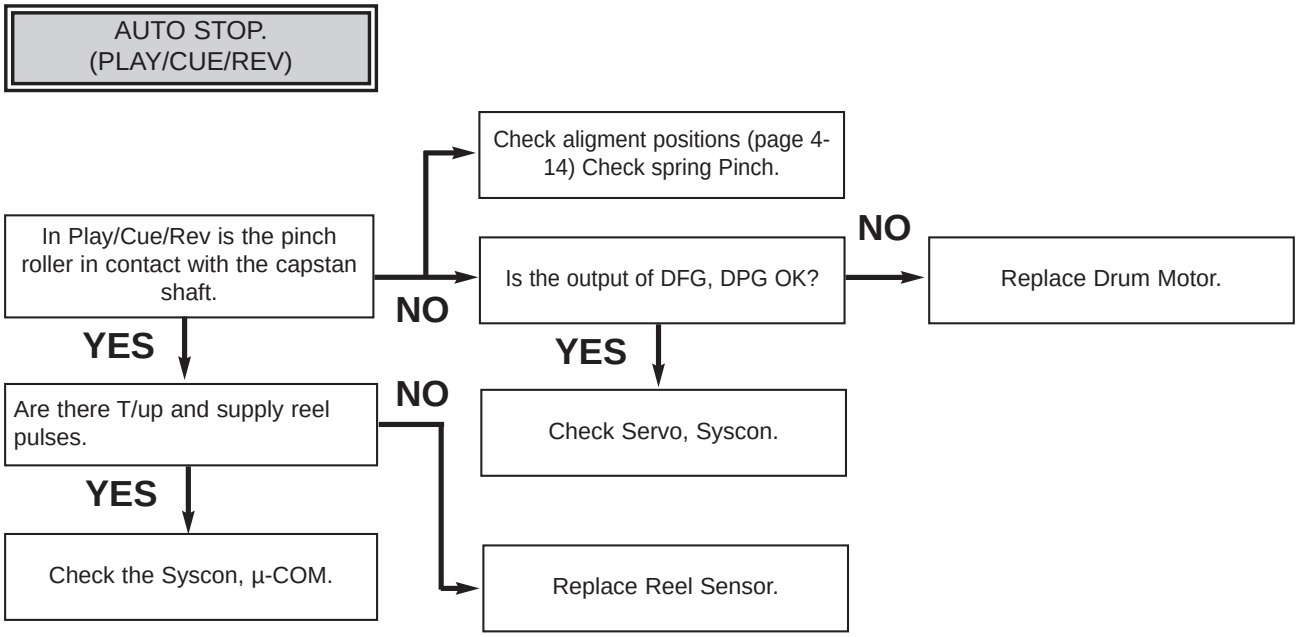
A.



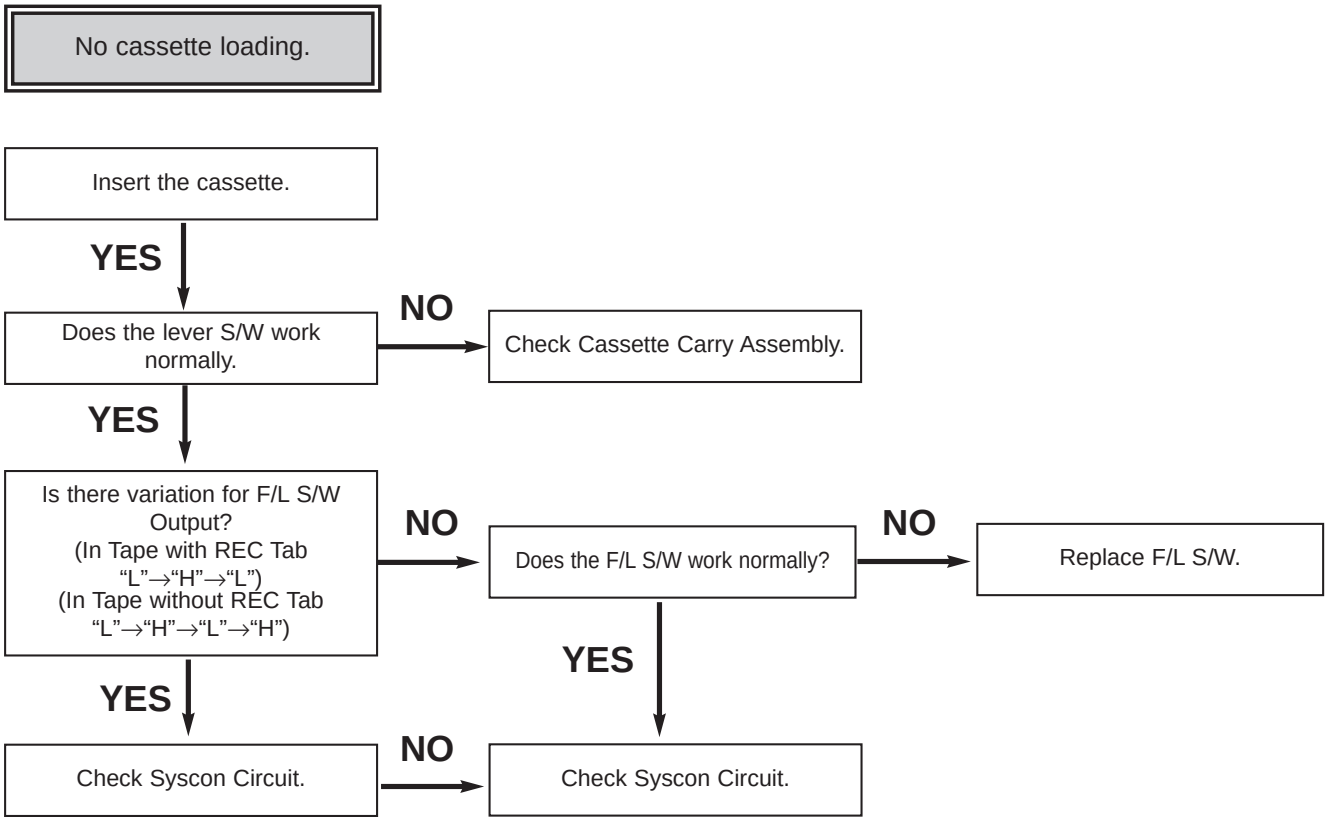
B.



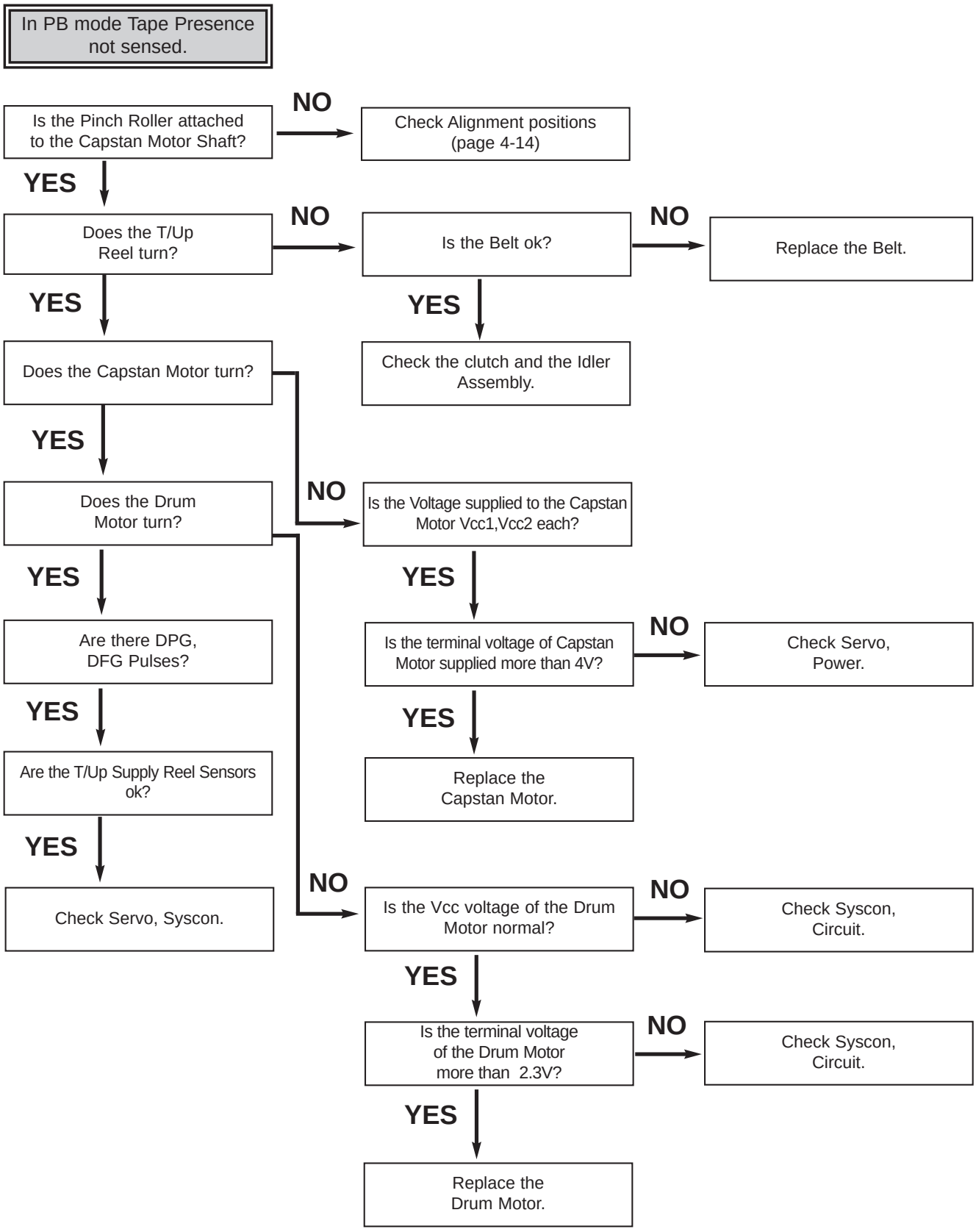
C.


AUTO STOP.
(PLAY/CUE/REV)
In Play/Cue/Rev is the pinch roller in contact with the capstan shaft.
Check aligment positions (page 4-14) Check spring Pinch.
NO
Is the output of DFG, DPG OK?
NO
Replace Drum Motor.
YES
YES
Are there T/up and supply reel pulses.
NO
Check Servo, Syscon.
YES
Check the Syscon, µ-COM.
Replace Reel Sensor.

D.


No cassette loading.
Insert the cassette.
YES
Does the lever S/W work normally.
NO
Check Cassette Carry Assembly.
YES
Is there variation for F/L S/W Output?
(In Tape with REC Tab
"L"→"H"→"L")
(In Tape without REC Tab
"L"→"H"→"L"→"H")
NO
Does the F/L S/W work normally?
NO
Replace F/L S/W.
YES
YES
Check Syscon Circuit.
NO
Check Syscon Circuit.

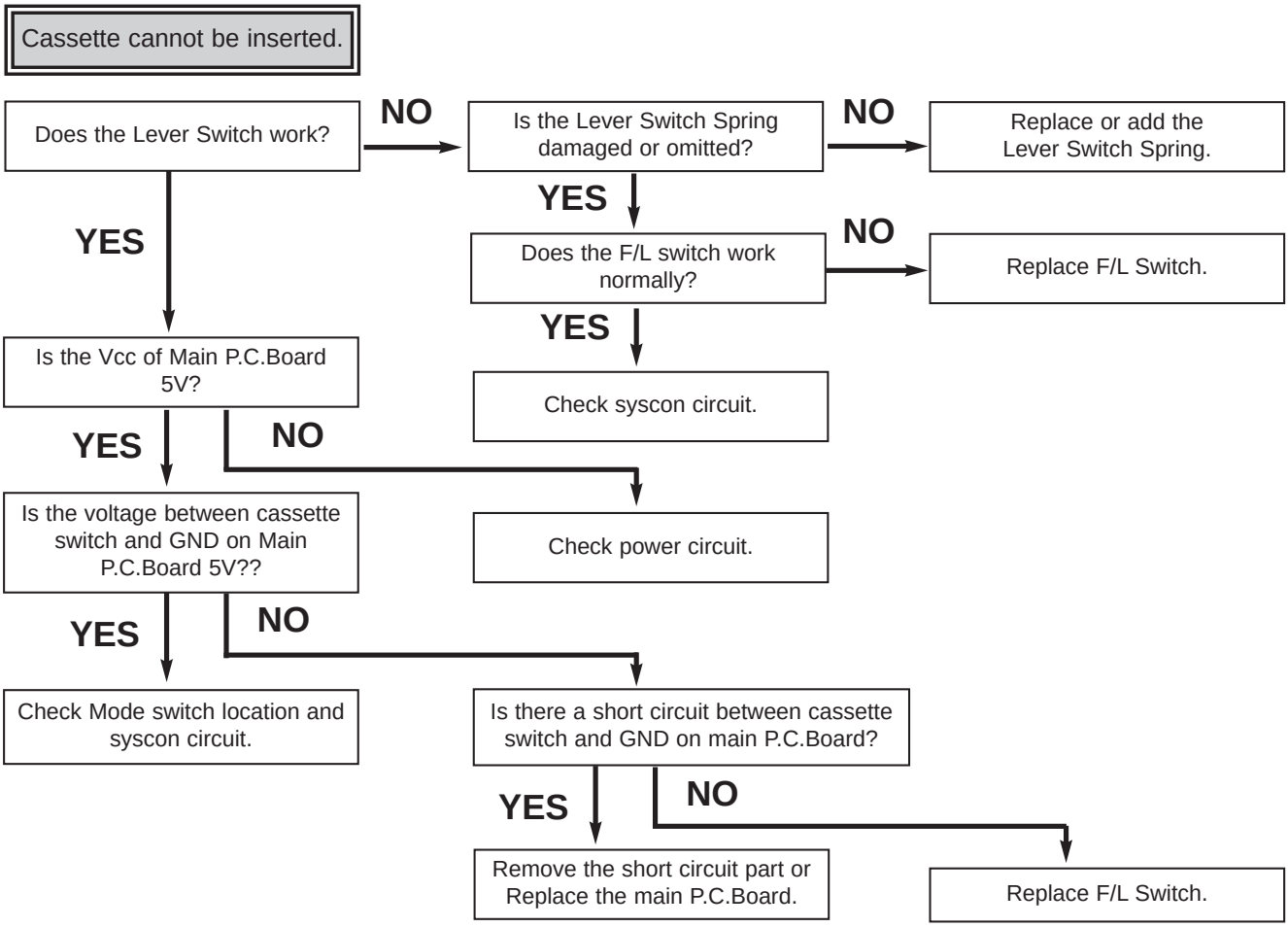
E.


In PB mode Tape Presence not sensed.
Is the Pinch Roller attached to the Capstan Motor Shaft?
NO
Check Alignment positions (page 4-14)
YES
Does the T/Up Reel turn?
NO
Is the Belt ok?
NO
Replace the Belt.
YES
YES
Check the clutch and the Idler Assembly.
Does the Capstan Motor turn?
YES
Does the Drum Motor turn?
NO
Is the Voltage supplied to the Capstan Motor Vcc1,Vcc2 each?
YES
YES
Are there DPG, DFG Pulses?
Is the terminal voltage of Capstan Motor supplied more than 4V?
NO
Check Servo, Power.
YES
YES
Are the T/Up Supply Reel Sensors ok?
Replace the Capstan Motor.
YES
NO
Check Servo, Syscon.
Is the Vcc voltage of the Drum Motor normal?
NO
Check Syscon, Circuit.
YES
Is the terminal voltage of the Drum Motor more than 2.3V?
NO
Check Syscon, Circuit.
YES
Replace the Drum Motor.

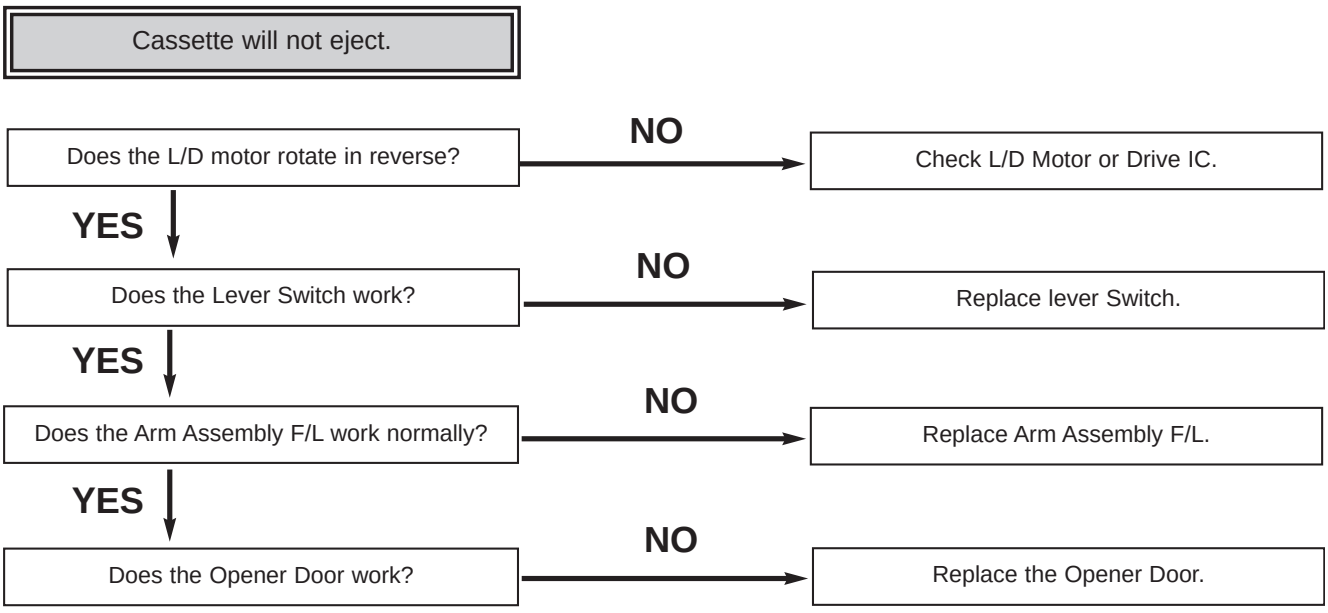
MECHANISM TROUBLESHOOTING GUIDE

2. Front Loading Mechanism

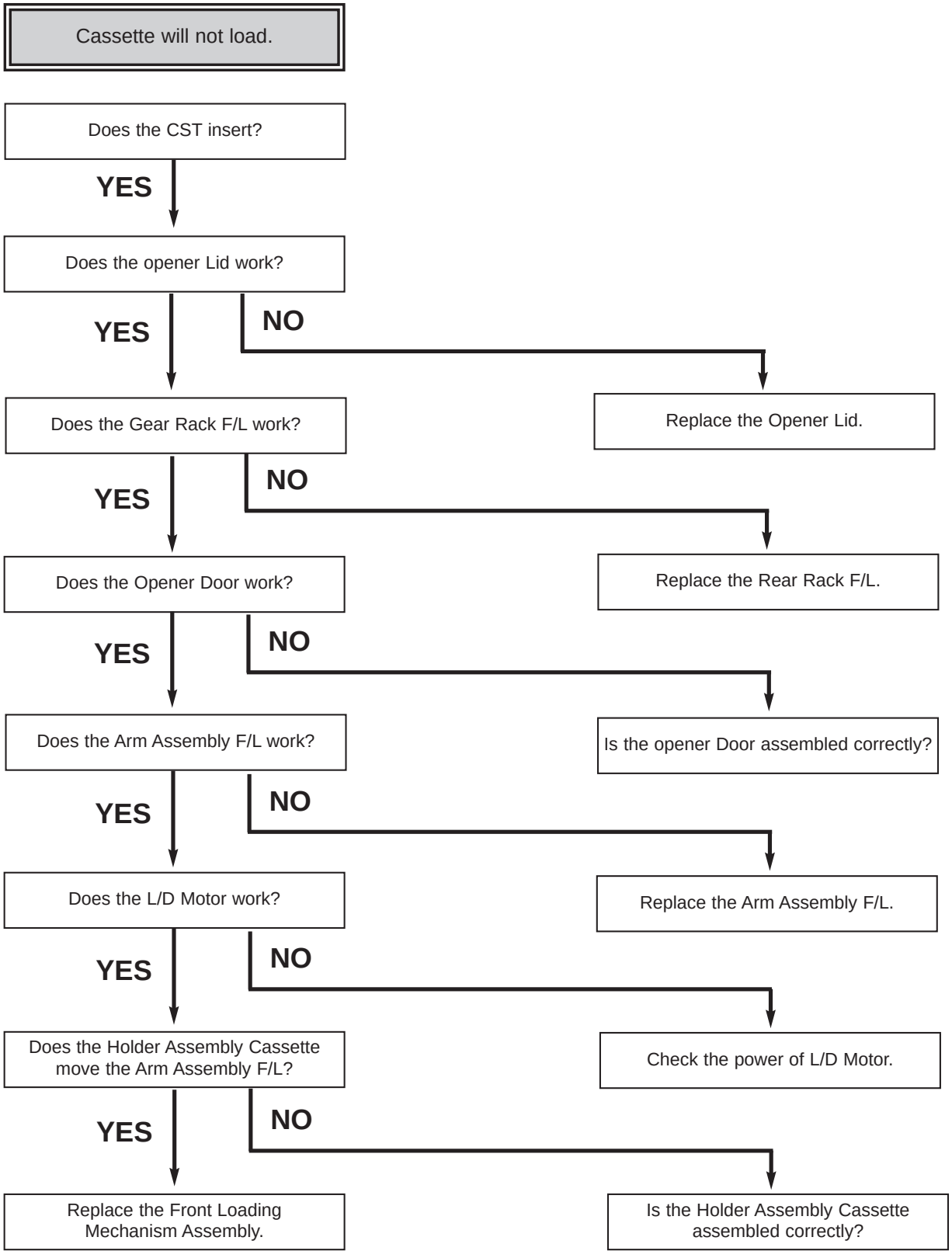
A.


Cassette cannot be inserted.
Does the Lever Switch work?
NO
Is the Lever Switch Spring damaged or omitted?
NO
Replace or add the Lever Switch Spring.
YES
YES
Does the F/L switch work normally?
NO
Replace F/L Switch.
YES
Is the Vcc of Main P.C.Board 5V?
Check syscon circuit.
YES
NO
Is the voltage between cassette switch and GND on Main P.C.Board 5V??
Check power circuit.
YES
NO
Check Mode switch location and syscon circuit.
Is there a short circuit between cassette switch and GND on main P.C.Board?
YES
NO
Remove the short circuit part or Replace the main P.C.Board.
Replace F/L Switch.

B.

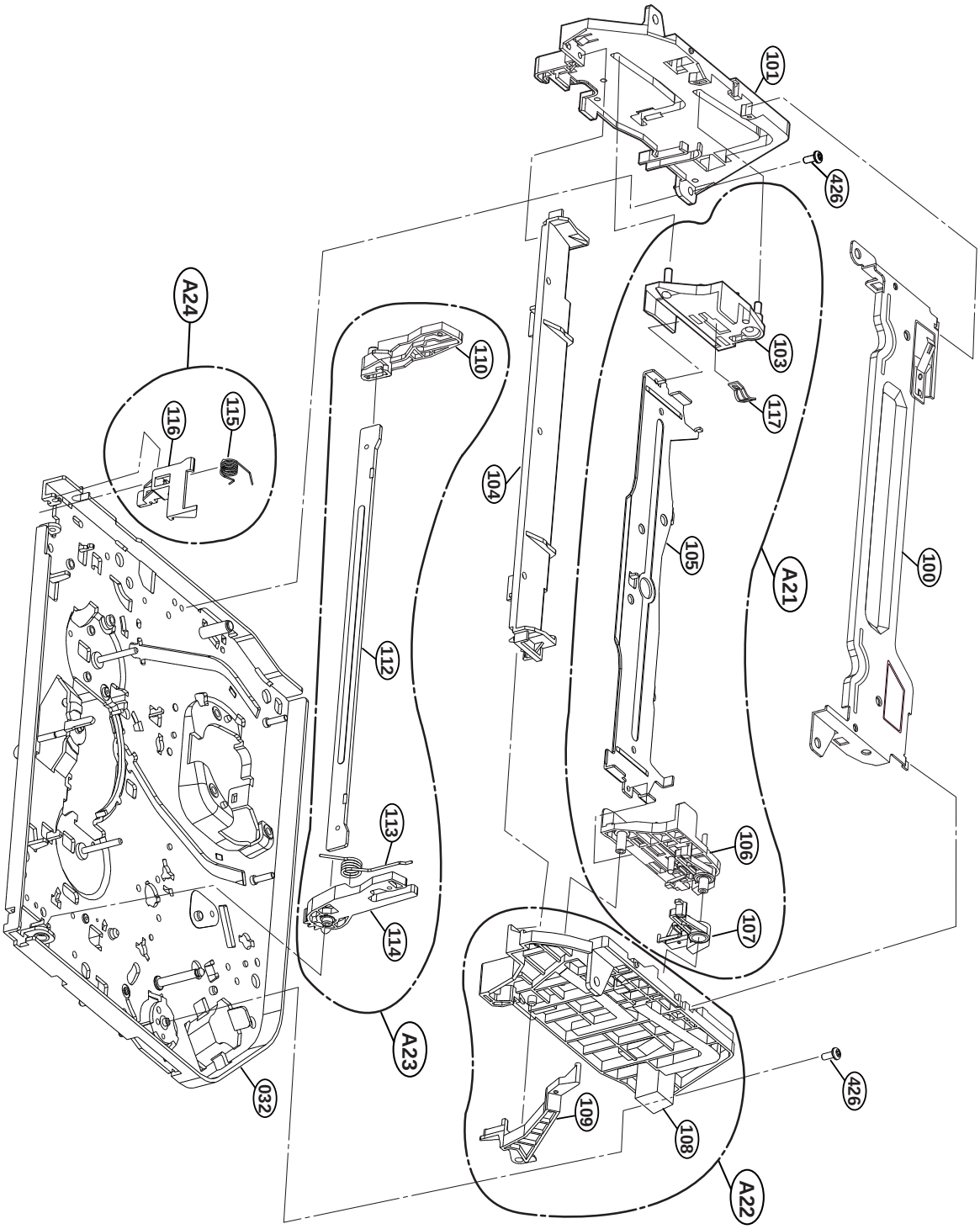


C.


Cassette will not load.
Does the CST insert?
YES
Does the opener Lid work?
YES
NO
Replace the Opener Lid.
Does the Gear Rack F/L work?
YES
NO
Replace the Rear Rack F/L.
Does the Opener Door work?
YES
NO
Is the opener Door assembled correctly?
Does the Arm Assembly F/L work?
YES
NO
Replace the Arm Assembly F/L.
Does the L/D Motor work?
YES
NO
Check the power of L/D Motor.
Does the Holder Assembly Cassette move the Arm Assembly F/L?
YES
NO
Is the Holder Assembly Cassette assembled correctly?
Replace the Front Loading Mechanism Assembly.

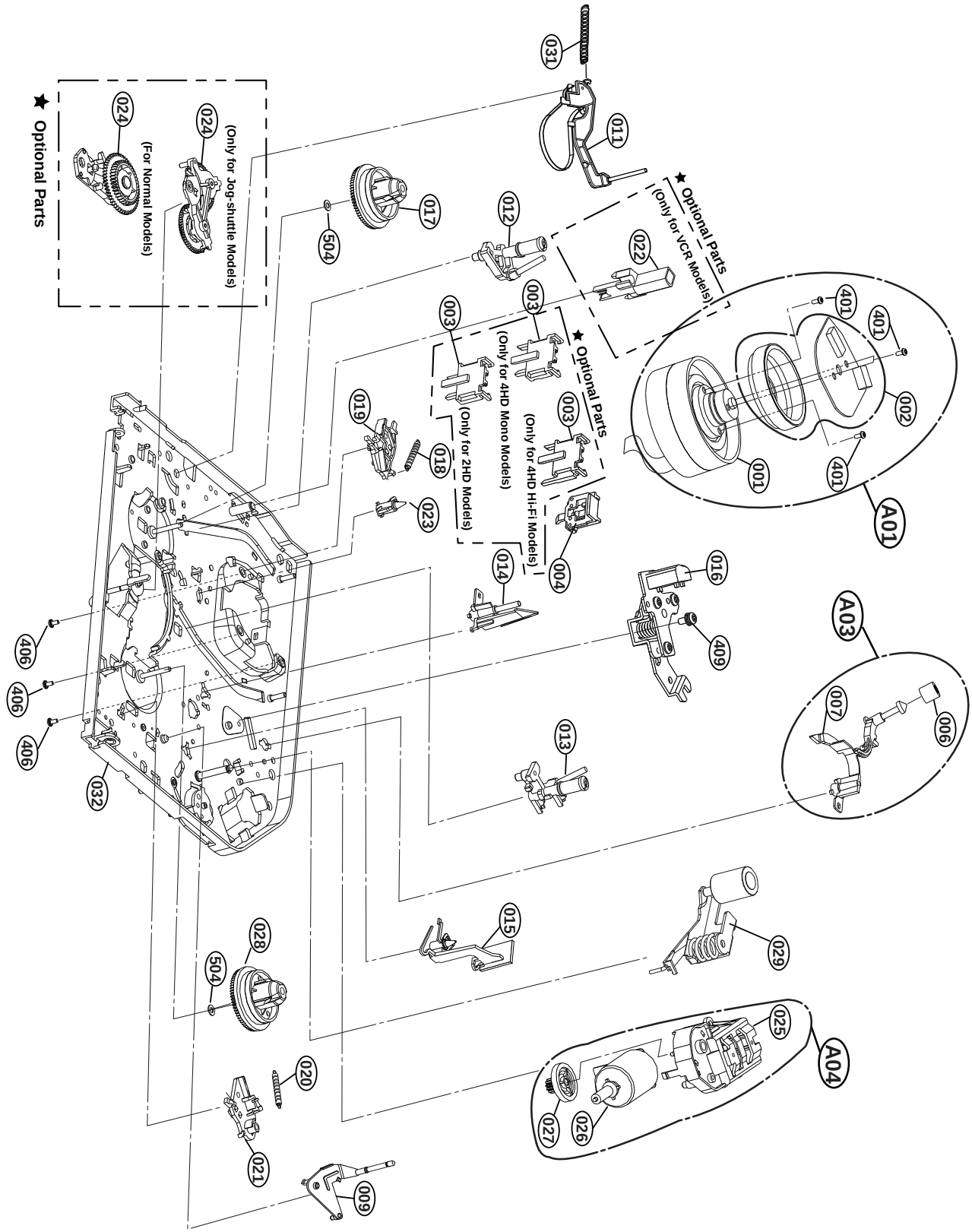
EXPLODED VIEWS

1. Front Loading Mechanism Section



EXPLODED VIEWS

2. Moving Mechanism Section(1)



EXPLODED VIEWS

3. Moving Mechanism Section(2)